Experiences of Adult Patients in Discharge and Recovery from Day Surgery: A Qualitative Systematic Review

Ms Irene Mayo

Master of Clinical Science

Joanna Briggs Institute

Faculty of Health and Medical Sciences

The University of Adelaide

South Australia

19 October 2019

Table of Contents

Acknowledgements

Firstly, I would like to thank my principal supervisor, Dr. Lucylynn Lizarondo, for her unwavering support and patience. Without Lucy's words of encouragement and guidance I do not think I would have completed this thesis. There were many times when I doubted my ability to complete this thesis, and she always encouraged me to persevere and complete this degree. I'm truly thankful for her. I would also like to thank Dr. Murray Stokan for his content expertise and encouragement.

I am grateful to Ms. Siang Tay for her assistance in copyediting this thesis. Thank you for doing this within the required timeframe. I would also like to thank the staff members of the Joanna Briggs Institute (JBI) for making this degree an enjoyable one. To Assoc. Prof. Craig Lockwood, thank you for accepting me into the program. To Mr. Alex Mignone, thank you for your support in all administrative matters and for making me feel welcome at the JBI whenever I visited the office.

Lastly, to my husband, Christopher Davidson, thank you for supporting me and being a source of encouragement during the challenging times of this degree.

Declaration

I, Irene Mayo, certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

I acknowledge that copyright of published works contained within this thesis resides with the copyright holder(s) of those works.

I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library Search and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

I acknowledge the support I have received for my research through the provision of an Australian Government Research Training Program Scholarship.

Irene Mayo

19 October 2019

Abstract

Review question

The purpose of this systematic review was to critically appraise and synthesise the best available qualitative evidence on the experiences of adult patients in discharge and recovery from day surgery.

Introduction

In many countries, day surgery is increasingly considered a default option for surgery. With the increasing popularity of this approach, which enables patients to go home on the same day, it is important to explore and understand how they recover at home. High quality day surgery care requires healthcare professionals, specifically nurses, to be knowledgeable not only in intraoperative procedures but also postoperative care. The quality of patient recovery is considered one of the primary endpoints of day surgery. Postoperative recovery is related to the patient's ability to return to their usual activities following discharge at home and includes aspects of physical, social and psychological health. It is influenced by many factors including the type of surgery and anaesthesia, patient characteristics and social factors. Moreover, an unrealistic expectation, unmet needs, poor preparation, lack of professional support and insufficient information, which are commonly experienced by day surgery patients, are a major cause of poor recovery. It is therefore important that a systematic review of patient experiences of discharge and recovery following day surgery be undertaken in order to determine their needs and support requirements.

Inclusion criteria

Types of participants

This review considered studies that included adult patients 18 years and over who have been discharged from day surgery. This review included any type of day surgery procedure, including ear, nose and throat, general, gynaecological, ophthalmic, oral and maxillofacial, orthopaedic, plastic, urology and vascular surgeries, and breast surgery.

Phenomena of interest

This review considered studies that explored adult patients' experiences of discharge and recovery following day surgery. These experiences included those related to the discharge process and preparation, physical and/or psychosocial recovery (e.g. symptoms such as pain, nausea and fatigue), psychological reactions (e.g. anxiety), complications and their ability to manage and return to normal activities, support requirements from healthcare professionals and/or caregivers/family, and their met and unmet needs.

Context

This review included studies on day surgery settings.

Types of studies

This review considered qualitative studies including designs such as phenomenology, grounded theory, ethnography and action research. Descriptive qualitative studies that described the experience or the effects of the experience were also considered.

Methods

A systematic review of qualitative studies was undertaken. Published and unpublished studies that met the inclusion criteria were considered. All relevant studies were then critically appraised using the JBI critical appraisal tool; studies were included regardless of their methodological quality.

Data were extracted from the included studies using the standardised data extraction tool from JBI. Meta-aggregation was used to synthesise the findings from individual articles.

Results

Eleven studies met the inclusion criteria, involving a total of 365 patients. From these studies, 54 unequivocal and eight credible findings with illustrations were extracted. These findings were organised into nine categories, which were then grouped into three synthesised findings: 1) Patients experience day surgery in different ways, with some feeling positive about same-day discharge, others are overwhelmed with discharge information, and some feeling rushed and unprepared to leave the health facility; 2) Day surgery is associated with various physical and emotional symptoms that can cause stress for patients and their caregivers; and 3) Patients require practical self-management strategies and coping skills as well as support from health practitioners, community services and caregivers to facilitate recovery.

Conclusions

The findings of this systematic review suggest that day surgery patients and their caregivers generally feel unprepared for discharge, which indicates the need for high-quality education for both patients and caregivers. Self-management strategies and support from caregivers, health professionals and community services are key to postoperative recovery. Future research should focus on identifying effective strategies for training nurses so they can provide such education to patients/caregivers. Additionally, innovative approaches that use technology to provide support for this patient population should be explored and evaluated.

ConQual Summary of Findings

Synthesized findings	Type of research	Dependability	Credibility	ConQual score	Comments
Patients experience day surgery in different ways, with some feeling positive about same-day discharge, others are overwhelmed with discharge information, and some feeling rushed and unprepared to leave the health facility	Qualitative	Moderate (downgraded one level)	Moderate (downgraded one level)	Low	Dependability downgraded – of the six studies addressing this synthesised finding, three answered all five dependability questions and three answered only three dependability questions. Credibility downgraded due to a mixture of unequivocal and credible findings.
Day surgery is associated with various physical and emotional symptoms that can cause stress for patients and their caregivers	Qualitative	High	Moderate (downgraded one level)	Moderate	Dependability not downgraded as six out the seven studies addressing this synthesised finding answered all five dependability questions and only one answered three dependability questions. Credibility downgraded due to a mixture of unequivocal and credible findings.
Day surgery patients require practical self-management strategies and coping skills as well as support from health practitioners, community services and caregivers to facilitate recovery	Qualitative	Moderate (downgraded one level)	Moderate (downgraded one level)	Low	Dependability downgraded – of the eight studies addressing this synthesized finding, four answered all five dependability questions and four answered only three dependability questions. Credibility downgraded due to a mixture of unequivocal and credible findings.

Introduction

Personal interest in the topic

As a former clinical nurse educator in the day surgery unit, I am aware of the responsibilities of nurses in the care of day surgery patients. With the advances in surgical and anaesthetic techniques, many surgeries that were once performed on an in-patient basis have now become day surgery. This advancement warrants giving careful attention to how patients experience recovery at home which is considerably different from those who recover in hospital settings where patients are supported with healthcare professionals providing continuous 24-hour care. In a fast-paced environment such as day surgery, I question how well we prepare patients and their caregivers in their recovery process at home. Whilst seemingly simple, day surgery comprises a wide range of surgical procedures that nurses must be able to understand in order to provide the right information to help patients and caregivers set realistic expectations for their recovery at home.

Whilst surgical techniques have evolved to become minimally invasive, what occurs internally in the body and the recovery involved may be underestimated by patients. Patients in my care often wonder why they are in so much pain despite seeing only laparoscopic surgery (‘keyhole’) being performed, for example. In my experience, caregivers also hold a similar misconception. Patients who seem to think that day surgery is the same as day-only recovery set themselves up for unrealistic expectations in their recovery. This can cause stress, potential readmissions and unnecessary reliance on facilities such as emergency departments.

As a nurse who believes in person-centred care, I have an interest in empowering patients, caregivers as well as healthcare professionals to enable patients and caregivers to receive and provide appropriate, relevant and safe care during the patient’s recovery at home from day surgery. This systematic review aims to shed light into how patients (and their caregivers) experience

discharge from day surgery and provide evidence-based recommendations that can facilitate their safe discharge and recovery at home.

Background

Day surgery: definitions, origins and recent developments

Due to advances in surgical and anaesthetic techniques, day surgery has become a common practice worldwide.[1, 2] Day surgery, also known as ambulatory surgery or out-patient surgery, is defined as 'an operation or procedure where the patient is discharged on the same working day without an overnight stay.'[3[para3]] Day surgery is considered safe for patients[4] and a cost-effective approach that reduces healthcare costs to individuals, the health sector and the wider society.[5]

Dr. James Nicholl laid the foundations of day surgery at the turn of the 20th century when he performed paediatric day surgery in Glasgow, Scotland.[6, 7] He operated on paediatric patients who presented with conditions such as hernia, phimosis, mastoid disease, cleft palate, talipes equinus and spina bifida. The push for Dr. Nicholl to perform day surgery was partly due to financial constraints and to reduce the risk of hospital-acquired infections.[7] In 1909, he successfully completed 8,988 paediatric day surgeries.[8, 9] However, the success of Dr. Nicholl did not lead to an immediate uptake of day surgery in the United Kingdom due to the resistance of medical and nursing disciplines. This started to change in 1955 when Dr. Eric Farquharson, a surgeon of the Royal Informary of Edinburgh, advocated that day surgery hernia repair could assist in the prevention of postoperative complications.[9] Dr. Farquharson argued that early ambulation following day surgery can prevent venous thromboembolism which is one of the most devastating complications of in-patient surgery.[9] In 1962, the University of California took up Dr. Nicholl's concept of day surgery and created a hospital based day surgery facility, and other

healthcare units in the United States started to expand as a result of its success. In the 1970s and the 1980s, day surgery units in the United States, Canada, United Kingdom and Australia started to open and this was the start of the expansion of day surgery in developed countries around the world.[9]

Over the last 50 years day surgery rates have increased in many countries, particularly in developed nations. A survey of 18 countries showed that the United States and Canada performed 80% of procedures as day surgery, followed closely by Scandinavian countries.[10] Another indicator of growth in this area is the number of day surgery units being opened. In North America, there are now over 5,000 ambulatory surgery centres performing over 12 million procedures annually.[7] In Australia, in 2002 there were over 234 recognised day surgery units compared to 83 units in 1993[9]. This growth in day surgery can be attributed not only to the advancement in surgical and anaesthetic techniques but also its wide acceptance amongst healthcare professionals, politicians, health insurance funds, patients and their families.[9]

Surgical techniques have also become more sophisticated over the last 50 years to enable day surgeries to be performed. Many procedures have now become minimally invasive and are therefore less risky. Surgeons use techniques that do not require the need for large excisions that incur prolonged recovery. With the emergence of scopes, surgeons can perform a large range of procedures with minimal incision. Common day surgery procedures are listed in the Table 1, according to surgical specialty. A recent study has even reported on brain tumour excisions being performed as day surgery.[11]

Table 1: Common day surgery procedures[4, 7-10]
Ear, nose and throat • Myringotomy • Nasendoscopy • Adenoidectomy • Tonsillectomy General surgery • Laparoscopy cholecystectomy • Gastroscopy • Colonoscopy • Polypectomy Breast • Augmentation • Lumpectomy Gynaecological • Dilatation and curettage • Hysteroscopy Orthopaedic • Arthroscopy

Along with cutting-edge improvements in surgical techniques, developments in anaesthetics and pain management have also increased the range of operations available as day surgery. Airway management techniques such as the use of short acting anaesthetic agents and the laryngeal mask airway over endotracheal intubation have enabled patients to recover quickly.[7] Anaesthetic techniques that have improved over the last few decades include regional and local anaesthesia. The use of these anaesthetic techniques is well accepted by patients due to increased alertness, less pain and lowered rates of nausea and vomiting. Anaesthetic techniques that have been successful in the day surgery setting include local infiltration, peripheral nerve blocks and neuroaxial blockade.[12]

Patient eligibility for day surgery

Whilst a number of surgeries are considered safe for same day discharge, there are certain medical and social prerequisites in ensuring the safety and care of day surgery patients when they are discharged back to their homes.[8] A number of guidelines from reputable professional organisations have been developed to provide guidance regarding patient eligibility for day surgery. According to the Australian and New Zealand College of Anaesthetists (ANZCA), to be eligible for day surgery, patients should either be at the American Society of Anesthesiologists (ASA) physical status 1 (healthy) or 2 (mild systemic disease) or medically stable ASA 3 (severe systemic disease) or 4 (severe systemic disease that is a constant threat to life).[13] A careful assessment of medical conditions must be made, with particular attention given to obstructive sleep apnoea.[13] The presence of a responsible adult to oversee the care of the patient at home is also considered an important factor in determining safety at home. Additionally, the safe transport of the patient should be considered as patients who have received sedation and/or general anaesthesia are not allowed to drive themselves home on the day of surgery.[13] Without supervision and safe transport home for the first 24 hours postoperatively, patients often find themselves having to stay in hospital overnight.

Benefits associated with day surgery

Day surgery offers a range of benefits to both patients and the healthcare system. A day surgery unit is particularly suited to provide patient-centred care. As the day surgery unit is a self-contained one, patients are not mixed with inpatients and those who are seriously ill.[14] As such, they become the focus of attention of healthcare professionals and tend to receive more personalized treatment.[9] The ability for day surgery units to focus on healthy and stable patients also allow for increased efficiency as minimal interventions are required to discharge a patient. Patients also have

a reduced incidence of thromboembolism due to early ambulation and a reduced risk of being exposed to multi-resistance microorganisms compared to patients admitted in hospital.[9] Further, there is a wealth of literature suggesting high levels of patient satisfaction in those undergoing day surgery.[2, 15-17] Day surgery allows patients to recover at home in a familiar environment, minimizing the separation from family and friends.[15] Patients have also reported that it is less disruptive and time consuming, compared to surgeries that require an inpatient hospital stay.[18] For patients who are parents or full-time employees, day surgery offers convenience and less disruption to their daily activities.[19] For the healthcare system, day surgery increases throughput, decreases waiting lists and reduces the overall cost of care.[4-6] Hospital costs for day surgery is 25% to 68% less than what would be required for an inpatient stay.[20]

Challenges and unmet needs associated with day surgery: the patient's perspective

Although there are many advantages and benefits associated with day surgery, it presents challenges that mainly revolve around discharge and recovery of patients at home.[19, 21] Following surgery, care is transferred to patients and their caregivers, which means that they do not have the advantage of healthcare professionals monitoring and facilitating their recovery.[21] Misconceptions may also exist where the term 'day surgery' is perceived as synonymous to 'same day recovery' which may lead to unrealistic expectations of recovery among patients and their caregivers.[22, 23] Although major complications are rare, symptoms such as postoperative pain, nausea, vomiting, drowsiness, fatigue and headache are common, which often result in physical restrictions.[21, 22, 24-28] If not effectively managed, these symptoms can persist and recovery from day surgery can be problematic, delayed or cause unnecessary hospital admissions. A study found that symptoms such as pain and wound problems (e.g. bleeding and swelling) were present for up to three months following day surgery.[28] Patients reported restricted mobility, impaired sleep and

inability to live normally because of their lingering postoperative symptoms.[28] In another study, patients who underwent general surgery and urologic surgery had bruising, swelling and skin discolouration which affected their self-image.[27] Some patients described coping with such symptoms as stressful. Feelings of uncertainty were also common in day surgery patients. A qualitative study examined the postoperative experiences of women following gynaecological surgery and found that the majority of patients felt uncertain about what was 'normal' in regard to the symptoms they were experiencing.[29] Another study found similar results and reported that patients and caregivers felt uncertain about how to manage symptoms and who to turn to for support.[22]

The presence of a responsible adult to oversee the care of the patient at home is a crucial factor in the safe discharge of day surgery patients. Day surgery patients require support to manage their own care and feel confident in themselves and others involved in their care (i.e. their caregivers). They need enough information to manage postoperative symptoms and potential complications, and be prepared for their recovery at home. However, there is evidence suggesting that patients and caregivers do not receive adequate information and support to prepare for discharge and recovery at home. A study involving women who underwent day surgery found that access to support other than their caregiver was insufficient.[19] Another study showed that information given to patients postoperatively did not always address their needs and was often based on what nurses perceived as important for the patient to know.[29] For example, post-gynaecological surgery, although provided with information about pain management, women were not given specific information on when they could resume sexual activities, which was a source of distress for many younger and middle-aged women.[19] Other factors in the day surgery setting also preclude the delivery of good quality information and effective support to patients and their caregivers. For

instance, with rapid patient turnover, the quality of nurse to patient and caregiver interaction is often compromised due to time constraints.[2, 22] The provision of written and verbal discharge education is also challenged by potential patient anxiety and amnesia that is brought about by general anaesthesia.

Role of nurses in the care of day surgery patients

Day surgery units place a unique demand on nurses. Although there is a chain of command that divides responsibilities for the management of day surgery patients, the provision of fundamental perioperative and postoperative care is customarily the role of nurses. The nurses' role involves core activities such as patient preparation for surgery, monitoring and managing of side effects of anaesthesia and surgery, and patient and caregiver education.[30] Nurses must be able to manage multiple patients at any given time in their shift so they can attend to the physiological and psychological needs of their patients. It requires time management, competent assessment skills and the ability to provide education in simple terms.

Since patients are discharged home on the same day of surgery, patient education is paramount to the ability of the patient and their caregiver to be prepared for recovery at home. It is therefore important for healthcare practitioners, most importantly nurses, to understand these factors and individual patient needs so they can provide a tailored but consistent approach that can facilitate safe and effective transition of care.[14, 21, 30] A systematic review demonstrated that a tailored discharge plan which included education and various forms of healthcare support can increase patient satisfaction and reduce the risk of hospital readmission in medical and surgical patients.[31] While this systematic review does not specifically relate to the discharge and recovery of day surgery patients, it underscores the importance of education and support in preparing patients' transition to their home environment.[31]

Why this systematic review is needed

High quality day surgery care requires healthcare professionals, specifically nurses, to be knowledgeable not only in intraoperative aspects but also postoperative aspects of care. The quality of recovery is considered as one of the primary endpoints of day surgery.[32] It centres around the patient's ability to return to their usual activities following discharge at home and includes aspects of physical, social and psychological health.[33] Postoperative recovery is influenced by many factors, including the type of surgery and anaesthesia, patient characteristics and social factors.[33] Moreover, unrealistic expectations, unmet needs, poor preparation, lack of professional support and insufficient information are a major cause of poor recovery, which are experienced by most day surgery patients.[2, 22] It is therefore important that a systematic review of patient experiences of discharge and recovery following day surgery be undertaken in order to explore their needs and support requirements.

A literature review by Mitchell in 2013[2] summarised the findings of 25 studies which examined nursing support required by day surgery patients to facilitate their recovery at home. Common themes identified from included studies were related to pain management, information provision and post-discharge anxiety. Whilst this review provided useful information, it did not critically appraise the literature, and more studies pertaining to discharge and recovery from day surgery have been published since the review. A search of the Cochrane Database of Systematic Reviews, PROSPERO and *JBI Database of Systematic Reviews and Implementation Reports* failed to identify a systematic review on adult patients' experiences of discharge and recovery from day surgery. A systematic review investigating patients' experiences can help identify important information about discharge and recovery at home which will be useful for healthcare

professionals, especially nurses, in understanding how to best prepare patients and their caregivers postoperatively.

Research method

The Joanna Briggs Institute (JBI) methodology for systematic reviews of qualitative evidence was employed for this research. This thesis presents a systematic review with findings from 11 qualitative research papers using the JBI meta-aggregative approach. This involved the aggregation and synthesis of findings in order to produce a single comprehensive set of synthesised statements that could be used as a basis for evidence-based practice.

Meta-aggregation provides strength and reinforcement between study findings. JBI has been pivotal in developing this process and its effectiveness and reliability are supported by various research organisations.[34]

A synthesis of qualitative evidence (rather than quantitative) was selected to enable the understanding of adult patient experiences of recovery and discharge from day surgery. Each patient's experience from day surgery is subjective and unique, however, with the pooling of these experiences using meta-aggregation, themes emerge that can point to a broader human experience which can be used to inform practice, policy and further research. The core of this systematic review's methodology was that it provided insight into an understanding of large-scale individual experiences.

Objectives

The purpose of this systematic review was to critically appraise and synthesise the best available qualitative evidence to understand the experiences of adult patients relevant to their discharge and recovery from day surgery.

Methods

Qualitative research is becoming an increasingly recognised field of science and inquiry over the last few decades. Studies that present qualitative data are critical to the understanding of human experiences, which are equally important as effectiveness data from quantitative studies in informing healthcare decision-making. Systematic reviews of qualitative studies are a powerful vehicle for exploring the beliefs, expectations and understandings of patients which can represent their voice in healthcare decisions.

The process of conducting a qualitative systematic review provides an avenue of rigour and quality to ensure that participants' stories are true to their experiences. The JBI methodology for conducting qualitative systematic reviews was applied in this study, as a requirement for the degree of Masters of Clinical Science. This chapter details the inclusion criteria for the systematic review: types of participants, phenomena of interest, context and type of studies. This chapter also describes the systematic review methods used, including a description of the search strategy, as well as an overview of the processes used to critically appraise the studies, extract study characteristics and findings, and synthesise extracted data.

Inclusion criteria

Types of participants

This review considered studies that included adult patients 18 years and over who had been discharged from day surgery. This review considered any type of day surgery procedure performed for any condition including ear, nose and throat, general, gynecological, ophthalmic, oral and maxillofacial, orthopaedic, plastic, urology and vascular surgeries, and breast surgery.

Phenomena of interest

This review considered studies that explored adult patients' experiences of discharge and recovery following day surgery. These experiences included those related to the discharge process and preparation, physical and/or psychosocial recovery (e.g. symptoms such as pain, nausea and fatigue), psychological reactions (e.g. anxiety), complications and their ability to manage, return to normal activities, support requirements from healthcare professionals and/or caregivers/family, and their met and unmet needs.

Context

This review considered studies on day surgery settings. These are health care facilities that are either connected to a hospital or as a stand-alone day surgery facility where surgery is done on the same day as patient discharge.

Types of studies

This review considered qualitative studies including designs such as phenomenology, grounded theory, ethnography and action research. Descriptive qualitative studies that described the experience or effects of the experience were also included.

Search strategy

The search strategy aimed to find both published and unpublished studies. A three-step search strategy was utilised in this review. An initial limited search of MEDLINE and CINAHL was undertaken to identify search terms contained in the title and abstract. Initial key words or terms used in various combinations included: day surgery, ambulatory surgery, patient experience, patient perspective, patient view, discharge and recovery. A second search using all identified keywords and index terms was undertaken across all included databases in May 2018 and then in July 2019. Thirdly, the reference list of all eligible studies was searched for additional studies.

Only studies published in English were considered for inclusion in this review. A date limit was not set in the search strategy.

The databases searched included:

- CINAHL
- MEDLINE
- Embase
- PsycINFO
- Web of Science

The search for unpublished studies included:

- ProQuest Dissertations and Theses
- Google Scholar
- WorldWideScience.org

The website of the International Association of Ambulatory Surgery was also searched for relevant studies.

Study selection

Following the search, all identified citations were collated and uploaded into EndNote version X9.2 (Clarivate Analytics, PA, USA) and duplicates removed. The primary author (I.M.) screened the titles and abstracts against the inclusion criteria, and where there was uncertainty, the secondary reviewer (L.L) was consulted. Studies that met the inclusion criteria were retrieved in full and details imported into the Joanna Briggs Institute System for the Unified Management, Assessment and Review of Information (JBI SUMARI) ((Joanna Briggs Institute, Adelaide, Australia). The

full texts of selected studies were retrieved and assessed in detail against the inclusion criteria. Full text studies that did not meet inclusion criteria were excluded and reasons for exclusion are provided in Appendix I.

Assessment of methodological quality

Qualitative papers selected for retrieval were assessed by two independent reviewers (I.M. and L.L.) for methodological validity prior to inclusion in the review using the JBI Critical Appraisal Checklist for Qualitative Research (Appendix II). The purpose of this appraisal tool is to assess the methodological quality of the qualitative studies and determine the extent to which a study has addressed the possibility of bias in its design, conduct and analysis. The ten quality assurance questions that make up the critical appraisal tool could be answered 'yes', 'no', 'unclear' or 'not applicable'. Qualifying criteria were developed around each of the appraisal questions to ensure consistency and transparency in interpretation between reviewers. A 'yes' answer deemed that the study met the requirements of the question, a 'no' meant it did not meet the requirements and an 'unclear' indicated that insufficient study information had been provided to enable a conclusive decision about its inclusion. 'Yes' answers were allocated a score of '1', whilst 'no' and 'unclear' were both scored '0'.

Following independent appraisal of individual studies, the primary reviewer (I.M.) identified disagreements with the secondary reviewer (L.L.) in some items of the quality scoring. Disagreements were then resolved through a discussion and so a third reviewer was not needed.

Data extraction

Qualitative data were extracted from papers included in the review using the JBI qualitative data extraction instrument (Appendix III). The data extracted included specific details about the populations, study methods, phenomena of interest and findings significant to the review question.[63]

Findings consisted of verbatim themes or subthemes from individual studies, representing the study authors' interpretation of their data. Each finding was accompanied by an illustration, which comprised a direct quotation from individual study participants. Findings were then assigned a level of credibility (i.e. unequivocal, credible or unsupported) to indicate the degree of support each illustration offered to the specific finding. Findings accompanied by an illustration that was beyond reasonable doubt and not open to challenge were assigned an 'unequivocal' level of credibility; findings where there was lack of clear association with the illustration were assigned 'credible'; and those where the illustrations did not support the findings were judged as 'unsupported.' Only findings rated as unequivocal and credible were utilised in the synthesis.

Data synthesis

Qualitative research findings were pooled with the meta-aggregation approach. This involved the aggregation or synthesis of findings to generate a set of statements that represented that aggregation, through assembling the findings and categorizing these findings on the basis of similarity in meaning. These categories were then subjected to a synthesis in order to produce a single comprehensive set of synthesized findings that could be used as a basis for evidence-based practice.

The first stage of synthesis involved reviewing all extracted findings from individual studies. This was followed by the aggregation of extracted findings to generate a set of statements (i.e.

categories) that represented that aggregation. Categories were then subjected to a meta-aggregation in order to produce a comprehensive set of synthesised findings that could be used as a basis for evidence-based practice.

As this systematic review was undertaken towards a Masters in Clinical Science degree, the stages of data extraction and synthesis were performed solely by the primary reviewer who is the author of this thesis; these however were verified by the primary supervisor to ensure rigour in the analysis and interpretation of findings.

Assessment of confidence in findings

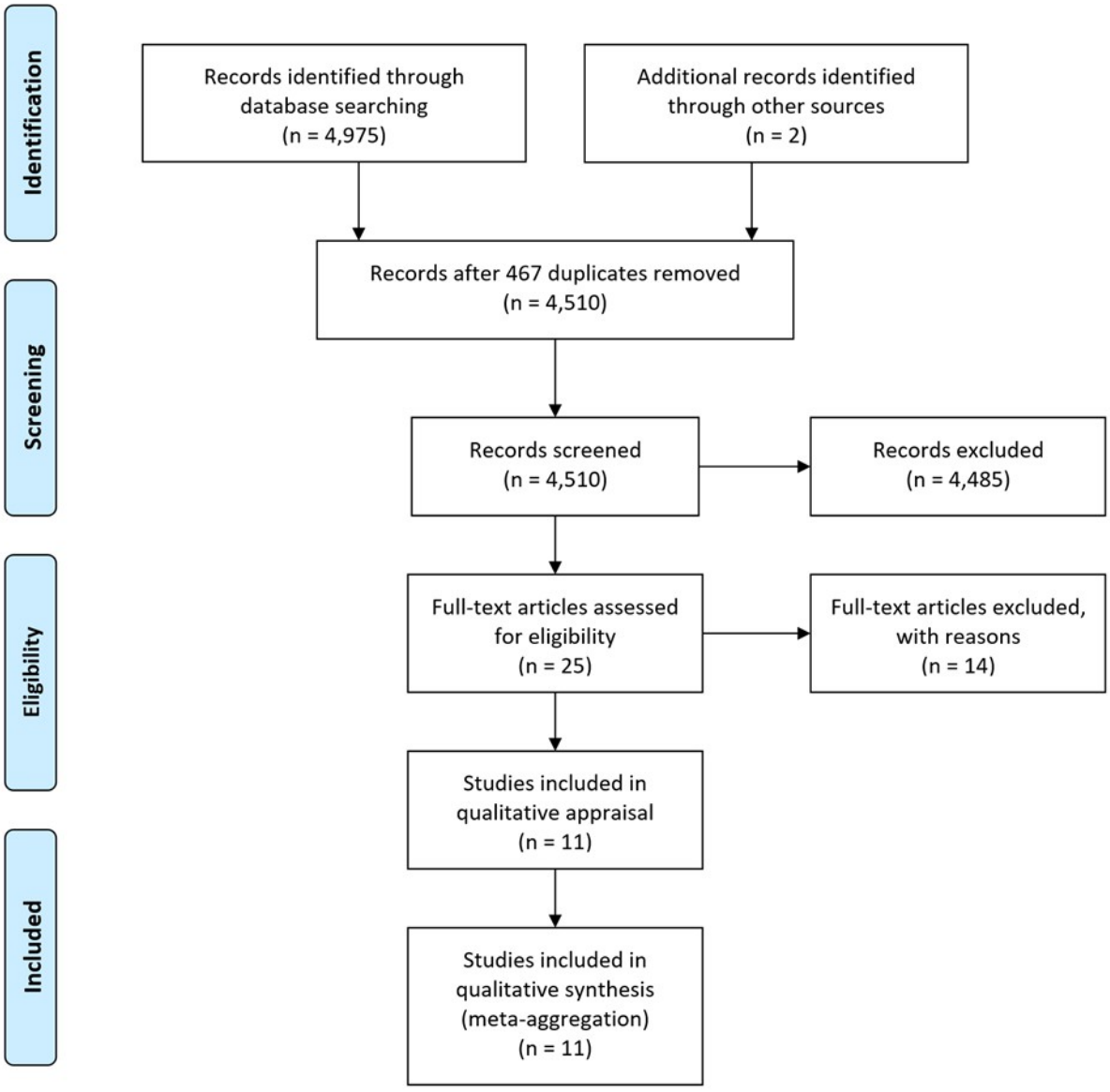
The synthesised findings were graded according to the ConQual approach for establishing confidence in the output of qualitative research synthesis and presented in a Summary of Findings [35]. Synthesised findings were examined based on their dependability and credibility; each finding was presented with the type of research informing it, a score for dependability, a score for credibility and the overall ConQual score.

Results

This chapter reports on the search results, methodological quality and characteristics of included studies, and findings from the synthesis of included studies. Eleven primary qualitative studies were included in this review. From these studies, a total of 54 unequivocal and eight credible findings with illustrations were extracted. These findings were organised into nine categories, which were then grouped into three synthesized findings (see Appendix VII for meta-aggregation table).

Search results

Figure 1 outlines the study selection process. A thorough search of published literature yielded a total of 4,975 potentially relevant papers (CINAHL = 738, MEDLINE = 569, Embase = 337, PsycInfo = 319, Web of Science = 3,012). Two additional studies were retrieved throughthe gray literature search. After excluding duplicates, the primary reviewer examined the titles/abstracts (N = 4,510) against the inclusion criteria; a further 4,485 papers were excluded from the review. Twenty-five papers were retrieved for full-text examination to verify eligibility for inclusion; of these, 14 papers were further excluded (see Appendix V for the list of the excluded studies) as their phenomena of interest were not relevant for this review. A total of 11 qualitative studies published between 1994 and 2017 were included in the review. Table 2 lists the included studies as well as the number of findings extracted from each study.



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097.

Figure 1: PRISMA flow diagram of search and study selection process

Table 2: Included papers and number of findings

Reference	Number of findings (Unequivocal, Equivocal, Unsupported)
Berg K, Årestedt K, Kjellgren K. Postoperative recovery from the perspective of day surgery patients: A phenomenographic study. Int J Nurs Stud. (2013, Dec), [cited September 6, 2018]; 50(12): 1630-1638. Available from: CINAHL Complete.	13
Bryson G, Mercer C, Varpio L. Patient and caregiver experience following ambulatory surgery: qualitative analysis in a cohort of patients 65 yr and older. Can J Anaesth. (2014, Nov), [cited September 6, 2018]; 61(11): 986-994. Available from: CINAHL Complete.	10
Dawe D, Bennett L, Kearney A, Westera D. Emotional and informational needs of women experiencing outpatient surgery for breast cancer. Can Oncol Nurs J. (2014, Winter2014), [cited September 6, 2018]; 24(1): 20-24. Available from: CINAHL Complete.	10
Gilmartin J. Contemporary day surgery: patients' experience of discharge and recovery. J Clin Nurs. (2007, June), [cited September 6, 2018]; 16(6): 1109-1117. Available from: CINAHL Complete.	4
Gilmartin J, Wright K. Day surgery: patients' [sic] felt abandoned during the preoperative wait. J Clin Nurs. (2008, Sep 15), [cited September 6, 2018]; 17(18): 2418-2425. Available from: CINAHL Complete.	4
Greenslade M, Elliott B, Mandville-Anstey S. Same-day breast cancer surgery: a qualitative study of women's lived experiences. Oncol Nurs Forum. (2010, Mar), [cited September 6, 2018]; 37(2): E92-7. Available from: CINAHL Complete.	5
Kleinbeck S, Hoffart N. Outpatient recovery after laparoscopic cholecystectomy. AORN J. (1994, Sep), [cited September 6, 2018]; 60(3): 394-402. Available from: CINAHL Complete.	4
Mottram A. Patients' experiences of day surgery: a parsonian analysis. J Adv Nurs. (2011, Jan), [cited September 6, 2018]; 67(1): 140-148. Available from: CINAHL Complete.	3
Mottram A. 'They are marvellous with you whilst you are in but the aftercare is rubbish': a grounded theory study of patients' and their carers' experiences after discharge following day surgery. J Clin Nurs. (2011, Nov), [cited September 6, 2018]; 20(21/22): 3143-3151. Available from: CINAHL Complete.	3
Odom-Forren J, Reed D, Rush C. Postoperative Distress of Orthopedic Ambulatory Surgery Patients. AORN J. (2017, May), [cited September 6, 2018]; 105(5): 464-477. Available from: CINAHL Complete.	12
Odom-Forren J, Reed D, Rush C. Postoperative Symptom Distress of Laparoscopic Cholecystectomy Ambulatory Surgery Patients. J Perianesth Nurs. (2015, Aug), [cited September 6, 2018]; 30(4): e39. Available from: CINAHL Complete.	8
Total number of findings	75

Methodological quality

Overall, the methodological quality of the majority of included studies was moderate to high. All studies demonstrated congruence between their research methodology and the research question/objectives (Q2), as well as the methods utilised for data collection (Q3). All, except for one[36], showed congruence between their stated philosophical perspective and the research methodology used (Q1). Only one[36] study did not align their research methodology with analysis of data (Q4) and interpretation of results (Q5). Only two studies[37, 38] had a statement locating the researcher theoretically or culturally (Q6). The influence of the researchers on the research (and vice-versa) was addressed (Q7) by six[21, 22, 27, 37-39] of the 10 studies. All studies, except for one[36], adequately represented the voices of their participants (Q8), had ethics approval (Q9), and drew conclusions that flowed well from the analysis and interpretation of data (Q10).

Table 3: Critical appraisal results for included studies using the JBI-QARI critical appraisal tool

Reference	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Berg *et al.*[21]	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Bryson *et al.*[40]	Y	Y	Y	Y	Y	U	U	Y	Y	Y
Dawe *et al.*[41]	Y	Y	Y	Y	Y	U	U	Y	Y	Y
Gilmartin *et al.*[42]	Y	Y	Y	Y	Y	U	U	Y	Y	Y
Gilmartin[27]	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Greenslade *et al.*[43]	Y	Y	Y	Y	Y	U	U	Y	Y	Y
Kleinbeck *et al.*[36]	U	Y	Y	U	U	U	U	U	U	U
Mottram[39]	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Mottram[22]	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Odom-Forren *et al.*[37]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Odom-Forren *et al.*[38]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Y = yes; N = no; U = unclear

Characteristics of included studies

Of the 11 included studies, five studies were conducted in the United Kingdom[22, 27, 39, 42, 43], followed by two studies[40, 41] conducted in Canada, two studies[37, 38] in the United States and one study[21] in Sweden. Eight studies[18, 21, 22, 37, 38, 40, 41, 43] were published between 2011 and 2018, and the remaining three[27, 36, 42] were published in 1994, 2007 and 2008, respectively (see Appendix IV for the list of study findings). The included studies applied different study designs such as phenomenography, qualitative descriptive, phenomenology, grounded theory and constructivism. Data collection methods included focus group interviews, individual interview observation and field notes. Approaches to data analysis included iterative procedure, content, thematic, comparative and line by line analysis.

Type of participants

The number of participants in individual studies ranged from seven to 145. Patients' age varied between 18 and 85 years. The patients included in the primary studies underwent different types of day surgery procedures, including orthopaedic, general surgical (i.e. laparoscopic cholecystectomy), urological, gynaecology, breast surgery, and ear, nose and throat procedures. The majority of the studies included both male and female patients, with only two studies[41, 43] focusing on women. Five studies[22, 37-40] also included the caregivers of patients as participants.

Phenomena of interest

Six of the studies sought to explore day surgery patients' perceptions of postoperative recovery and discharge.[21, 22, 27, 39, 40, 42] Two studies specifically focused on the informational and emotional needs of women undergoing surgery for breast cancer.[41, 43] Two studies focused on

qualitative descriptive research specifically to identify symptoms experienced post-discharge and related management techniques of patients post-discharge from day surgery.[37,38]

Findings of the review

Synthesised finding 1: Patients experience day surgery in different ways, with some feeling positive about same-day discharge, others are overwhelmed with discharge information, and some feeling rushed and unprepared to leave the health facility

This synthesised finding comprises three categories and eight findings. Some patients in the included studies described their experience as a 'shock', not realising that day surgery meant being discharged on the same day of surgery; others, however, found the experience satisfying knowing that they could go home on the same day. Upon discharge, patients felt difficulties in remembering the instructions they received regarding postoperative care and felt that their length of stay in hospital was not enough to enable a smooth transition for their recovery at home.

This synthesised finding was derived from three categories: patients had conflicting reactions to same day discharge; patients experienced difficulties in retaining discharge information; and patients felt rushed or 'pushed out' too soon after surgery.

Category 1.1: Patients had conflicting reactions to same day discharge

Some patients were not expecting that their surgical procedure would constitute going home on the same day, and as such were shocked when they were informed about their discharge. However, there were patients who felt satisfied when they learned they were going home on the same day.

Finding 1: Initial shock

Female patient (unknown age) post breast surgery:

When he [the doctor] said day surgery, I said, 'what!' and he said, oh yes a couple of hours and you'll be in and out. And took me aback you know. [41](p22)

Finding 2: Acceptance

Female patient (unknown age) post breast surgery:

At first I was a little sceptical…because I was saying 'this seems to be a little more serious than…' and then when I thought about it, I said, 'yeah, there are a lot of things being done on an outpatient basis now that years ago wasn't even considered'. You know that was the conclusion I came to. [41](p22)

Finding 3: Satisfaction

Female patient (unknown age) post breast surgery:

Before I even had it done I was amazed that they were going to do it and send me home…looking at it now, looking back on it, it was good thing to go home. I had no problems whatsoever with the surgery, no infections…well most people have a fear of hospitals anyway. They just want to get out of there as quickly as they can, so maybe it's a good thing it's done the way it is. [41](p22)

Finding 4: Actively seeking the sick role

Female patient (unknown age) post polypectomy:

It was great being ill in the 50s. You were really looked after. I had a nice long rest after the operation. [39](p145)

Category 1.2: Patients experienced difficulties in retaining discharge information

Patients raised concern that, whilst they considered receiving postoperative care instructions important, the effects of anaesthesia impaired their ability to retain the information. The effectiveness of providing postoperative discharge information upon awakening from surgery and

anaesthesia was questioned.

Finding 1: Experiences of perioperative communication

Patient (unknown gender, age and surgery):

It's really hard to get a ton of information when you've just woken up. It's not really that you're super smart just then and remember…or actually are even interested in what somebody wants to say to you. *(21)(p1636)*

Finding 2: Timing of information

Female patient (unknown age) post breast surgery:

When I got back to that room…I was so groggy…I opened my eyes once, and this woman was standing by my bed with a book telling me about exercises I had to do on my arm, and I mean I never had a clue what she was saying, and, finally, I remember her laying it down. She said, 'take this book with you when you go home.' And the next day, I found this book there, and I mean I couldn't even remember what she said to me. I mean, to send in a physiotherapist to tell you about arm exercises when you're not out of an anesthetic, before you go home. *(43)(pE94)*

Category 1.3: Patients felt rushed or 'pushed out' too soon after surgery

Given the limited time that patients are allowed to stay in the hospital, many thought that they were being rushed out and felt unprepared for discharge.

Finding 1: Feeling pushed out

Female patient (unknown age) post breast surgery:

I just felt like the nurses wanted to [laughter] get rid of me. You know they were very nice about it, but they were very insistent and sat me up and helped me get some clothes on. And at that point, I was sick, you know. I started to throw up, and I was brought to the door [to leave] anyways. *(41)(p22)*

Finding 2: The dynamics of recovery

Male patient, 22 years old, post left hydrocele repair:

I was drowsy, incoherent, and very disorientated following the procedure and would have liked more time to recover. The nurses hurried me and I could hardly walk at all. *(42)(p2423)*

Synthesised finding 2: Day surgery is associated with various physical and emotional symptoms that can cause stress for patients and caregivers

This finding comprises two categories and 13 findings. There were three findings in this category that were unsupported and are therefore not reported in this review.

Day surgery patients experienced various physical and emotional symptoms following surgery and as they recovered in their homes. This resulted in patients feeling that their recovery was delayed or complicated. Inexperienced caregivers also found this stressful and some indicated that they could have been more prepared or planned better for the recovery of the patient.

Category 2.1: Physical and emotional symptoms were common after day surgery

Pain was a common complaint following the day surgery procedure. Patients, particularly those who underwent laparoscopic surgery requiring insufflation of carbon dioxide in the abdomen, experienced referred pain in their shoulder. A sore throat was reported as a side effect of having an artificial airway as part of general anaesthesia care. Nausea, on the other hand, was commonly

associated with the anaesthetic or opioid analgesia. Patients who managed their pain with opioid analgesia also complained of constipation. Bruising was also common for those who underwent hernia repair. Difficulty in voiding was described by a patient who underwent a urological procedure. Other physical consequences of day surgery included bleeding, impairment in mobility and inability to sleep. Patients also reported emotional consequences from day surgery. Those with impaired mobility felt they had lost their autonomy and did not like to rely on others for assistance. Some realised that whilst their mind felt ready to get back to daily tasks, their body was still fatigued and recovering.

Finding 1: Postoperative pain

Patient (unknown gender and age) post laparoscopic cholecystectomy:

I was not told to expect right shoulder pain…you don't think when they're working on the abdomen you're going to have neck and shoulder pain. *(38)(p805)*

Patient (unknown gender and age) post orthopaedic day surgery:

It was two days of hell. I considered going to the emergency room, thinking that maybe they would shoot me up with morphine like they did with kidney stones. *(37)(p468)*

Finding 2: Sense of pain, fatigue and skin discolouration

Male patient, 47 years old, post hernia repair:

I coped with the pain because the anaesthetist had prepared me, but the skin discolouration came as a shock. I came home on Friday morning and on Friday night I started to go black and blue mainly below the waist where the scar was. It spread down my groin into my testicles making them go completely black. I didn't know what to do but after a couple of days it disappeared. *(27)(p1113)*

Finding 3: Sense of swelling, bruising and voiding difficulty

Male patient, 85 years old, post cystoscopy and biopsy:

I reached crisis point shortly after discharge when I started passing a huge volume of strawberry-stained urine – blood clots I think. My daughter rang the day unit and he told us to go back to Casualty and then I was admitted. The doctor started a bladder irrigation. I felt fine physically but emotionally it was scary. [(27)(p1114)]

Finding 4: Nausea and vomiting

Patient (unknown gender, age and surgery):

The pain medication prescribed caused too much nausea. I stopped it and took Tylenol 500 which may have given less relief but which did not cause nausea and vomiting. [(40)(p989)]

Finding 5: Constipation

Patient (unknown gender and age) post orthopaedic day surgery:

I thought I was going to have to go back to the hospital I was constipated so bad. [(37)(p469)]

Finding 6: Sore throat

Patient (unknown gender and age) post laparoscopic cholecystectomy:

My voice sounded horrible…I would wake up real hoarse. [(38)(p807)]

Finding 7: Sense of bleeding, mixed emotions and betterment

Female patient, 64 years old, post dilatation and curettage:

The bleeding was heavy and bothersome…I put my feet up but it still persisted. I contacted my GP who encouraged me to take lots of rest. It is still flowing 10 days following surgery but is starting to subside a little. [27](p1114)

Finding 8: Experienced emotional consequences following surgery

Patient (unknown gender, age and surgery):

It wasn't just nice to have this operation. I got a bit of calm in my life. I got a break from this and that, and it's been unbelievably helpful. [21](p1634)

Finding 9: Inability to sleep

Patient (unknown gender and age) post orthopaedic day surgery:

They tell you to sleep in a recliner…I don't have a recliner. Lack of sleep in first couple of days along with pain will just about drive you up the wall. [37](p469)

Finding 10: Mobility impairment

Patient (unknown gender and age) post laparoscopic cholecystectomy:

I was afraid to sit down (on the toilet) when she [caregiver] was gone…that I might not be able to get back up. [38](p808)

Finding 11: The impact of physical restriction

Patient (unknown gender, age and surgery):

I haven't been able to do much of what I usually do…instead it's the wife who's been more burdened. [21](p1634)

Finding 12: Autonomy (lack of)

Patient (unknown gender, age and surgery):

1st day home – scary! Very limited movement. Walking is a problem, carrying anything impossible![(40)(p990)]

Finding 13: Resisting the sick role

Male patient (unknown age) post hernia repair:

About three days after surgery I thought I could get up and do a few jobs around the house. But when I got up I felt like I was going to faint. You see my mind was ahead of my body. I thought I was more ready than I was. [(39)(p143)]

Category 2.2: Following discharge, caregivers of day surgery patients experienced stress due to lack of understanding of the recovery process and as a result of changes in their role and home dynamics

Caregivers expressed concern and felt stressed due to the lack of knowledge and information related to the patient's recovery. They felt ill-equipped to deal with the patient's recovery and were left to work out strategies on their own. Changes in their role and family/home dynamics were also a source of stress for caregivers.

Finding 1: Wound care

Patient (unknown gender, age and surgery)

Last night blood was leaking from under the tape and a lot of blood was visible through the tape. I called friends and the hospital. The doctor to whom I spoke explained that a lot was normal but that I could go to emergency. [(40)(p990)]

Finding 2: Emotional state

Patient (unknown gender, age and surgery)

My husband usually helps me with the house chores. Since his surgery, I've tried to do most of the chores which makes him frustrated and angry. This helplessness creates a lot of tension. [(40)(p990)]

Finding 3: Caregiver experience

Patient (unknown gender, age and surgery)

Trying hard today to catch up on work and family contacts that I have let slip. Stressful but patient is doing well so that's good. [(40)(p991)]

Finding 4: Caregiver concerns

Patient (unknown gender, age and surgery)

I'm having some problems in keeping him from doing too much exertion; but mostly, in the end he'll listen. [(40)(p992)]

Finding 5: Caregiver stress

Patient (unknown gender, age and surgery)

They should have warned the caregivers because this was difficult. You have to help the patient with everything – getting out of bed – and if you have a problem with your back, you will mess it up…it happened to me. [(38)(p808)]

Finding 6: I didn't know what to do

Patient (unknown gender, age and surgery)*It was a great shock just how weak he was for nearly a month after day surgery. His legs kept giving way. He is a strong man, he runs his own business*

and he was planning to go back to work almost immediately. I was wondering if there was something more seriously wrong with him. I felt quite alone really. There was no one to ask. I felt that if a district nurse could have called in it would have made it much easier. *(22)(p3147)*

Synthesised finding 3: Day surgery patients require practical self-management strategies and coping skills as well as support from health practitioners, community services and caregivers to facilitate recovery

This finding comprised four categories and 26 findings. There were three unsupported findings in this category and were therefore not reported in this review.

Day surgery patients recognised that they had to cope and self-manage their symptoms after day surgery. However, they also felt they needed extra support from caregivers and health professionals. Patients valued it when healthcare professionals provided appropriate postoperative instructions and gave them adequate time for clarification. However, there were also instances when patients were not given enough information about postoperative care nor were they given an opportunity to seek clarification. Patients felt reassured when their caregivers knew what to do to assist with their postoperative journey. Support provided by caregivers brought mixed emotions. Some patients welcomed the support, whilst others felt they were a hindrance at home. Patients complained when expected community visits were unavailable due to staffing shortages and public holidays. Some patients indicated lack of access to support groups where they could engage with patients who had similar experiences. Other patients also mentioned the lack of support from their employers or work places.

Category 3.1: Discharge from day surgery triggered self-management strategies and coping skills which assisted in patients' recovery

Self-management involves understanding one's responsibility and having a positive view of the recovery process. Whilst some patients perceived managing their symptoms on their own as a burden, some felt it did not entail much responsibility and was mostly 'common sense'. Self-management strategies, such as the use of ice and recliners especially for patients recovering from orthopaedic procedures, were described. On discharge, some patients felt that having a positive disposition helped them cope with their condition and recovery.

Finding 1: The burden of postoperative responsibility

Patient (unknown gender, age and surgery):

But if you don't follow what you've gotten from them [instructions] you're responsible for what happens. *(21)(p1636)*

Finding 2: Preparing oneself for surgery

Patient (unknown gender, age and surgery):

Since it was supposed to be a simple operation I didn't look up anything special about it. *(21)(p1633)*

Finding 3: The impact of personal traits during the recovery process

Patient (unknown gender, age and surgery):

You have to trust yourself the whole time that I can do this. *(21)(p1633)*

Finding 4: Individual strategies for the post-discharge management of self-care

Patient (unknown gender, age and surgery):

It's common sense for me. Because what else do you have to go by? Then it's really just to feel your own signals. [21](p1633)

Finding 5: Coping

Female patient (unknown age) post breast surgery:

You have to have a good attitude and don't think about it. I never spoke to a person about it, except my husband and my daughter-in-law and my son. That's the way I look at it. Be positive…the doctor, nurses…they're just going to do their very best for you, and they're not going to let you come home and die…you've got to help yourself and get out there and do your own thing. That's what I did anyway. [43](pE95)

Finding 6: Ice

Patient (unknown gender and age) post orthopaedic day surgery:

Ice pack numbed it superficially, but the pain was very deep…to the bone. [37](p470)

Finding 7: Use of recliners

Patient (unknown gender and age) post orthopaedic day surgery:

I could use my recliner to slide the pillow around and get my shoulder in different positions. [37](p470)

Category 3.2: Patients required support from healthcare professionals prior to their discharge from day surgery

Patients valued receiving information about what to expect during and after day surgery and how to navigate their recovery. They also mentioned that support through the provision of clear

instructions and a chance to have questions answered were helpful in their preparation and recovery. Without support from healthcare professionals, patients felt abandoned and confused.

Finding 1: To be involved or not in health decisions

Patient (unknown gender, age and surgery):

One of the nurses came and said 'we're going to insert a permanent urine catheter in you.' I didn't have a choice. [21](p1636)

Finding 2: Useful knowledge for managing recovery

Patient (unknown gender, age and surgery):

Answers to these questions would've helped me a lot. What can I do? When can I do it?[21](p1633)

Finding 3: Perception of being informed

Patient (unknown gender, age and surgery):

Sheets of instructions given at discharge are contradictory even though both have the doctor's name on them. [40](p991)

Finding 4: Institutional support

Patient (unknown gender, age and surgery):

I was told to remove my bandage today and when I did there were a number of smaller bandages criss-crossing the incision. Don't know if I am to remove these – and Dr.'s office closed for weekend. My instructions were not clear. [40](p991)

Finding 5: Amount of information

Female patient (unknown age) post breast surgery:

They gave me a bunch of books, not that it was frightening…[(41)(p21)]

Finding 6: Preparation

Female patient (unknown age) post breast surgery:

The healthcare system has gone threadbare with its level of service…that's the problem: nobody tells you anything. You learn as you go. I just got on the phone and found out myself. [(43)(pE93)]

Finding 7: Discharge arrangements

Female patient (unknown age) post hysteroscopy and removal of polyp:

The information received prior to discharge was very good actually. They gave me an information sheet about the procedure and the carer's sheet and went through this with both of us when my husband arrived. The nurse highlighted that I shouldn't be left on my own and that I required a very comfortable and peaceful environment. She also gave me painkillers to take home and a contact number [(27)(p1112)]

Finding 8: The feeling of empowerment during preparation

Female patient (unknown age and surgery):

I saw the anaesthetist and she asked me about my previous operations. I told her about my concerns and the problems with anaesthetics and sickness afterwards. She was very understanding and said she could help, telling me about anti-sickness medication. [(42)(p2421)]

Finding 9: The apprehensions encountered

Female patient (unknown age and surgery):

I felt very worried for a week before I came in. I was frightened of not waking up after the anaesthetic. Yes…a nervous wreck on the morning of the procedure in case I would not see my children again. I expressed my fears to my gynaecologist but he just acknowledged them briefly and moved on to the next patient. [(42)(p2421)]

Finding 10: The feeling of abandonment in the preoperative waiting area

Female patient (unknown age and surgery):

As a patient you are at a huge disadvantage when you hear whispers that the anaesthetist hasn't turned up and we were not given direct information by the nurses and doctors about the long unexpected delay. They do not seem to tell you what is happening. I felt abandoned and spent many miserable hours with myself and no one expressed concern. [(42)(p2422)]

Category 3.3: Patients needed follow-up support from healthcare professionals for postoperative recovery at home

Following discharge from day surgery, some patients required access to community health services to help with general patient care such as management of dressings/stitches or as a means to check if they were recovering as expected.

Finding 1: Professional support

Female patient (unknown age) post breast surgery:

I was told the health nurse would change the dressing every day. Well, she was working out of [a rural area] and she couldn't come every day, so I had to go to [her office] to see her…I was really disappointed about that. [(41)(p21)]

Finding 2: Community health nursing intervention

Female patient (unknown age) post breast surgery:

They called that evening after I got home, and the next morning they were here to check in to make sure that everything was okay, and they cleaned off the stitches and everything like that…home care was really good for me. [(43)(pE95)]

Finding 3: Lack of aftercare

Male patient (unknown age) post hernia repair:

At the weekend I was feeling really rough. I was feeling fine until then but suddenly felt awful. I rang the helpline they had given me. They told me to ring for an ambulance. I didn't want to do that. I mean ambulances are for accidents, life and death situations. I wasn't like that. I just wanted to know if how I was feeling was normal, but I didn't know who to turn to. [(22)(p3148)]

Category 3.4: Patients perceived support from family, friends and other patients with similar surgery as a key component of recovery from day surgery

Support from family, friends and other patients who had a similar surgery was also considered a key aspect of recovery from day surgery. Caregivers and friends with a health background proved to be helpful and provided reassurance and security. Some patients felt that their caregivers were not helpful during the recovery process, citing that they were a hindrance to recovery and did not perform what was expected of them. Access to support groups consisting of patients who had similar experiences and support from employers were also highlighted as important in the recovery process.

Finding 1: Social support

Female patient (unknown age) post breast surgery:

The emotions are there and your friends are there to listen, no matter what. [41](p21)

Finding 2: Survivor support

Female patient (unknown age) post breast surgery:

I didn't talk to the right people before I had my surgery… I think there should be something in place where you could talk to someone who already had this surgery. [41](p22)

Finding 4: Sense of security post-discharge

Patient (unknown gender, age and surgery):

I have an advantage in that I have someone who's knowledgeable about medicine here at home. I guess I have extra security here. [21](p1633)

Finding 5: Caregiving

Patient (unknown gender, age and surgery):

I look into the kitchen. There are 3 days' worth of dirty dishes. Corn husks and dead strawberries look at me blearily from a colander. Surely I can wash the dishes, I say. They aren't heavy. No he says. Go lie down. When he is not looking I turn off the lights and close the kitchen cupboard doors. [40](p992)

Finding 6: Limited ascription of the sick role – what do I tell my boss?

Female patient (unknown age) post tendon repair:

My boss told me he had me down on the rota the next day. He said you can't be having that much done to you if you are only in for a day. [(39)(p144)]

Discussion

This chapter examines the synthesised findings in relation to the aim and objective of this review and in the light of the existing knowledge around day surgery, and considers the limitations ofthe included studies and the review process.

General discussion

The aim of this systematic review was to synthesise the best available qualitative research evidence on the experiences of adult patients in relation to their discharge and recovery from day surgery. Three synthesised findings were aggregated from 62 individual study findings identified from 11 qualitative studies. Findings from this review indicated that patients in day surgery had different reactions to being discharged on the same day, with some expressing satisfaction with immediate discharge whereas others were shocked. Patients generally felt unprepared for discharge. The review also demonstrated that, despite the minimally invasive procedure in day surgery, patients commonly experienced physical and emotional symptoms. Carers felt stressed due to lack of understanding of the recovery process and how they should assist patients, and also because of the unexpected changes in their role and family dynamics. Further, the review showed that same-day discharge triggered patients to use self-management techniques and coping skills to recover from the surgery and their condition. Finally, the review highlighted the importance of providing various types of support to day surgery patients to facilitate postoperative recovery at home.

Day surgery has rapidly evolved over the last half century.[8] This approach has now become the default option for elective surgeries and many of the non-elective procedures are also being performed in day surgery settings.[44]

The findings of the systematic review indicated that the speed of growth and acceptance of day surgery procedures by the health care sector does not align well with the perceptions and experiences of patients in day surgery. The review found that patients were unaware that certain procedures could be performed as day surgery. Whilst some patients perceived this with skepticism, there were also many who welcomed and valued this surgical advancement. Patients felt positive about the experience due to their ability to recover in a familiar environment such as their home and to be amongst their family as they go through the process. They also appreciated that day surgery offered minimal disruptions to their daily routine.[45] With day surgery continuing to increase in Australia as well as internationally, it would be advantageous for patients to be informed of these new and advanced techniques which would allow them the opportunity to recover at home. However, with day surgery being a default option for surgery and in keeping with a person-centred approach, it is important for patients to be given the option for inpatient stay. According to McCloy and McCutcheon[46], the decision to have day surgery should be shared amongst the surgeon, patient and their caregiver, and that if an option for inpatient stay is possible, then this should also be part of the discussion.

Based on the findings of this review and with day surgery being established as the preferred option in many minimally invasive surgeries, the provision of appropriate education for patients and their caregivers is of utmost importance. Relevant and appropriate information and education around postoperative recovery are paramount as patients (and their caregivers) are now given the responsibility for their own recovery. Given the importance of education, emphasis should be placed on the patient's as well as the caregiver's ability to understand and digest information. Another finding of this systematic review is the retention of information which greatly impacts the ability of patients to look after themselves once they leave a day surgery facility. Despite advances

in anaesthetic techniques, amnesia is still common, and anaesthesia along with opioid analgesia can impair the patient's cognitive abilities. Patients in the included studies mentioned that they had forgotten the information given to them. Additionally, many patients mentioned stress and anxiety as contributing factors to not being able to comprehend all the information. A number of studies have shown that delivering information preoperatively as part of the preoperative assessment could improve memory retention and enable patients and their caregivers to process relevant postoperative information without the effects of anaesthesia.[8, 47] Healthcare professionals, particularly nurses, must be mindful of the timing and amount of information they provide to avoid overloading and contributing to post-surgery stresses.[46] In a recent study investigating the impact of pain management education for patients undergoing outpatient abdominal surgery[48], patients expressed feeling rushed, and that the timing and amount of information provided caused undue stress. Moreover, the researchers discovered that there were inconsistencies in information delivered between patients, and that the information provided was dependent on the nurse. The study therefore suggested that nurses adapted their teaching styles to their patients, and that the use of scripted information would enable main concepts in pain education to be delivered in a consistent manner. The study also emphasised that nurses should provide patient-centred care by allowing patients to ask questions and indicate how much information they would like to receive.[48]

Limited health literacy may also be associated with difficulty in comprehending discharge information and may contribute to misconceptions about postoperative recovery.[47] Health professionals such as nurses should consider the health literacy level of their patients and caregivers. Day surgery nurses are well-positioned to identify gaps in patient discharge information and to find strategies to address these.[49] A flexible, tailored but consistent approach

in information delivery as well as options to seek information from reputable sources may help to ensure that patients and caregivers perform self-care and monitoring practices at home.[49] The literature suggests that postoperative information be delivered using plain language and providing support that can be easily accessible.[47] It is recommended that patients are given both verbal and written discharge information, in plain language, prior to surgery during the preoperative assessment stage.[44] This should then be reiterated in the discharge phase in the presence of a caregiver. A support contact, preferably a 24-hour telephone support, should also be included in the information provided to patients and their caregivers. A follow-up phone call by the discharging facility should also be conducted the next day following surgery.[47] Follow-up phone calls are another accepted strategy to ensure patients are recovering well at home and that they understand the requirements post-surgery.[50] These follow-up phone calls are another avenue to ensure that patients can communicate any concerns that they may have whilst recovering at home, which has shown to increase patient satisfaction in day surgery.[50] The use of video, internet and smart phone technology for discharge education is promising, however, this it is still being explored in the day surgery context.[51, 52] Such technologies, which were found to increase patient satisfaction among patients undergoing thoracic surgery, can be a potentially valuable medium for time poor nurses in the day surgery setting.[53] Additionally, phone applications can enable patients to decide when to seek assistance and therefore promote patient-centred care.[54]

The reduced length of time inherent with day surgery was a contributing factor towards nurse and patient interaction. The average length of stay for a patient undergoing day surgery can vary, and can be as little as 97.7 minutes in free standing day surgery centres to 146.6 minutes in hospital-based day surgery units.[8, 55] Overall, this is a short time spent in a clinical setting, and this was supported by the findings of this systematic review. Patients felt rushed out from day surgery and

did not feel prepared for discharge. This finding is consistent in other quantitative studies on patient satisfaction in day surgery.[48, 56] Healthcare professionals, especially nurses, should be providing patient-centred care based on the needs of the patients despite a short length of stay. It is crucial that nurses not only assess the patient's physiological readiness for discharge but also their confidence in self-care at home. If needed, the opportunity for overnight stay may be offered if possible. During the preoperative consultation, health care professionals (either the surgeon, anaesthestist or nursing staff) should be setting appropriate timeframes and expectations of recovery and discharge time to patients and their care givers. Continual reiteration may be useful, particularly for nervous or anxious patients where memory retention may be compromised.

The systematic review showed that patients experienced a range of physical and emotional consequences that not only impacted them but also their caregivers. Postoperative symptoms included pain, nausea and fatigue, among others. The cause of these symptoms were multifactorial and was influenced by the type of surgery, anaesthetic, analgesic medications and the individual's level of self-efficacy. The most common symptom experienced following day surgery was pain, which some patients expected whereas others did not.[27, 37, 38, 45, 57] Pain that was unexpected brought more negative emotional consequences. Laparoscopic surgery, for example, involves minimal incision, and yet the extent of surgery done internally can be quite substantial. The unexpected pain from laparoscopic surgery involves referred pain related to insufflated carbon dioxide gas that has not yet been excreted from the body.[38] Moreover, there is also a difference in the pain experience which may be dependent on the type of anaesthetic provided. The administration of regional anaesthesia has shown to provide good pain relief, with less reliance on opioid analgesia for day surgery patients.[12] In a recent mix method study, regional anaesthesia has been shown to promote a general feeling of wellbeing, compared to those who received a

general anaesthetic.[58] To reduce the amount of opioids administered for day surgery, the choice of regional anaesthesia is recommended.[44]

Another commonly reported symptom in the included studies was nausea and fatigue. The sensation of nausea was also multifactorial. Risk factors for post-discharge nausea and vomiting have been widely researched[59] and include female gender, age under 50 years, previous history of postoperative nausea and vomiting, administration of opioids in the post-anaesthetic care unit (PACU) and experience of nausea in PACU. Preventing post-discharge nausea and vomiting (PDNV) requires proper assessment of risk factors and appropriate interventions to mitigate them. These interventions can include the administration of total intravenous anaesthesia as opposed to general anaesthesia; prophylactic anti-emetics and hydration are also helpful.[59] Whilst this area is well researched, there is still variability in terms of the most effective ways of preventing and monitoring PDNV, which may affect the information/education and strategies delivered to patients and their caregivers upon discharge.[57, 60] Anaesthetists and nurses who work in day surgery should be trained to assess and identify patients at high risk for PDNV so that appropriate preventative measures can be taken for these patients. The symptom of fatigue was also a common occurrence. Patients and their caregivers did not realise the extent of fatigue, and the expectation to resume normal activities within a matter of days was often not achieved. Patients often find themselves having to stay at home or take a longer time to recover than what they expected. This unmet expectation of resumption in normal activities can be a source of frustration for many day surgery patients and caregivers.[37-39] Again, it is important that patients and their caregivers are given realistic timeframes based on the type of surgery and any existing co-morbidities that impact on recovery. There were also other symptoms specific to surgical specialties that patients complained about. Symptoms such as inability to void and mobility impairment related to urological and

orthopaedic procedures, respectively, were reported. All these symptoms placed a strain on the patient's autonomy and could cause distress. Day surgery nurses should be able to provide a tailored but consistent approach to providing discharge education related to the patient's surgery. Education should include common symptoms to expect post-anaesthesia and surgery-specific symptoms and how they can be managed. This education should include timeframes for recovery and when to consult professionals should they experience unexpected symptoms that require prompt intervention (i.e. fever, excessive bleeding and uncontrolled pain).[48, 56, 61]

The systematic review demonstrated that the physical and emotional consequences of day surgery on patients also affected their caregivers. In a study conducted on partners' experiences of day surgery, participants mentioned that their role was to ensure that they were available to help and watch over them during the first few days at home. 'Being there' was a key theme that emerged from the study and that partners felt responsible for ensuring that patients recovered without complications at home.[23] Provision of consistent patient-centred education could assist in providing realistic expectations of symptom management for both the patient and their caregiver. Assisting the caregiver will enable them to prepare and make necessary adjustments in their role and responsibilities as the patient recovers. Nurses and other health care professionals should provide information on the different types of symptoms that could be experienced post day surgery to help patients set appropriate expectations of both pain and recovery in order to allay concerns.

Another important finding from this systematic review was related to the patient's ability to self-manage their symptoms post-surgery and cope with recovery. A patient's self-efficacy plays a major role in how patients approach their recovery at home, and this was confirmed in several studies within the day surgery speciality but also other studies related to recovery at home after surgery.[39, 45, 62] Patients who had high levels of self-efficacy were seen to recover better and this

could be viewed as a determining factor in positive recovery. Patients with a mindset that is generally positive, and believe that their body will most likely recovery well, as opposed to individuals without insight into their recovery, can be expected to recover earlier. A recent study demonstrated that patients with high self-efficacy started preparing for their recovery at home even before they had surgery.[51, 52] In this study, authors emphasised the importance of arranging appropriate support systems such as caregivers and organising leave from work ahead of time to ensure ample time to recuperate. Interestingly, another study found that it was the patient's own healing abilities and their understanding of self-care that enhanced their recovery from day surgery.[45] Additionally, emotional support from family is an important aspect of patients' recovery from day surgery.[58] Caregivers are able to support the recovery of the patient at home and this systematic review demonstrated that caregivers also needed to be reliable and supportive emotionally and physically.

Healthcare professionals must be able to provide follow-up support for patients and their caregivers to facilitate successful recovery at home. Based on the current systematic review, patient experiences of support from their healthcare professionals were primarily positive but there were some concerns highlighted by some patients and their caregivers about the inadequacy of support provided in the community setting. Women who underwent breast surgery from day surgery mentioned that postoperative visits in a community clinic or visits from community nursing services did not occur during public holidays. It is important that health care facilities are aware of changes in work schedules such as public holidays or other closures that can impact on the care of patients in their home. The role of healthcare professionals is integral in empowering patients and caregivers, and giving them realistic expectations in their recovery, as well as providing important information that can assist them should a complication arise.

Limitations of included studies

There are a couple of limitations within the included studies that need to be considered. First, all included studies were conducted in western developed countries, and therefore the review does not capture the experiences of adult patients in developing countries; this may limit the transferability of the review findings to that population. Second, the majority of included studies lacked author reflexivity, with no statement or information locating the researcher culturally or indicating the possible influence of the researcher on the research. It is important that researchers are able to declare their values and beliefs and other sources of personal biases, which could influence the way they interpret the voice of the participants.

Limitations of the review process

There are a number of limitations to the systematic review process which should also be considered when interpreting the results of this review. First, only studies published in English were included in this review which could have potentially introduced a language bias. Second, as in all review studies, it is possible that some articles were missed in the search process. Third, the scanning of citations and reading of full text papers to determine eligibility for inclusion in the review was performed by the primary reviewer only (i.e. author of this thesis), which could have increased the possibility of missing some relevant articles. Finally, this review focused only on adult patients' experiences and did not consider the perspectives of younger patients or children with caregivers. The results of this review may therefore have limited transferability to this population.

Conclusion

The findings of this systematic review suggest that day surgery patients and their caregivers generally feel unprepared for discharge, which indicates the need for high-quality education for both patients and caregivers. The review also implies that patient/caregiver education and information be provided at the right time (preoperatively and reinforced postoperatively) and must include management of symptoms, realistic expectations of recovery, and access to support services. Self-management strategies and support from caregivers, health professionals and community services are key to postoperative recovery.

Implications for clinical practice

To assist clinicians in the interpretation of this systematic review findings, the JBI Grades of recommendation has been applied.[64] Grade A recommendations are considered to be strong recommendations for implementation based on desirable effects, adequate quality evidence provided, and values, preferences and patient experiences considered.[64] Grade B recommendations are considered to be 'weak' recommendations due to unclear desirable effects and that the evidence not of a high quality. [64]

Based on the findings of this review, day surgery patients should receive appropriate and individualised information and education to facilitate their recovery at home; this should also involve their caregivers (Grade B). The education provided should commence preoperatively and reinforced postoperatively, and include information about realistic expectations of recovery, self-management strategies, and support services should they require (Grade B). If available and when required, patients should be given an option for inpatient stay (Grade B). Health care facilities that offer day surgery must ensure appropriate training is provided to nurses and other health care professionals; training should include effective methods for educating patients/caregivers that can enhance their involvement and understanding of care at home (Grade B).

Implications for research

This review highlighted the importance of being able to adapt and develop tailored approaches for patient and caregiver education, and promote self-efficacy and empower patients and their caregivers for self-care at home. Future research should focus on identifying effective strategies for training nurses so they can provide such education to patients/caregivers. Additionally, innovative approaches that use technology to provide support for this patient population should be explored and evaluated. More research is also required on day surgery patients in other countries other than western developed countries and also on the experiences of different groups of people such as the paediatric population which can help inform strategies for improving patient experiences of discharge and recovery from day surgery.

References

1. Dewar A, Scott J, Muir J. Telephone follow-up for day surgery patients: patient perceptions and nurses' experiences. J PeriAnesthesia Nurs. 2004;19(4):234-41.
2. Mitchell M. Literature review: Home recovery following day surgery. Ambulatory Surgery. 2013;19(1):13-27.
3. International Association of Ambulatory Surgery. Ambulatory (day) surgery: suggested international terminology and definitions. [Internet]. 2003. [cited May 10, 2018]. Available from: http://www.iaas-med.com/files/historical/IAAS_definitions.pdf
4. Majholm B, Engbaek J, Bartholdy J, Oerding H, Ahlburg P, Ulrik AM, et al. Is day surgery safe? A Danish multicentre study of morbidity after 57,709 day surgery procedures. Acta Anaesthesiologica Scandinavica. 2012;56(3):323-31.
5. Virtanen H, Salantera S, Johansson K, Hiltunen A, Kaljonen A, Rankinen S, et al. A survey of patients' personal expenditure related to ambulatory surgery. Ambulatory Surgery. 2009;15(4):73-6.
6. Rae A. Reasons for delayed patient discharge following day surgery: a literature review. Nursing Standard. 2016;31(11):42-51.
7. Smith I, McWhinnie D, Jackson I. Day case surgery. New York: Oxford University Press; 2012.
8. Quemby DJ, Stocker ME. Day surgery development and practice: key factors for a successful pathway. Continuing Education in Anaesthesia, Critical Care &Pain. 2014;14(6):256-61.
9. Lemos P, Jarrett P, Philip B. Day surgery: Development and practice. Portugal: International Association for Ambulatory Surgery (IAAS); 2012.
10. Toftgaard C. Worldwide day surgery activity 2003 IAAS survey of ambulatory surgery. Ambulatory Surgery. 2007;13(1):4-11.
11. Khu KJ, Doglietto F, Radovanovic I, Taleb F, Mendelsohn D, Zadeh G, et al. Patients' perceptions of awake and outpatient craniotomy for brain tumor: a qualitative study. Journal Of Neurosurgery. 2010;112(5):1056-60.
12. Kopp SL, Horlocker TT. Regional anaesthesia in day-stay and short-stay surgery. Anaesthesia. 2010;65(s1):84-96.
13. ANZCA: Australian and New Zealand College of Anaesthetists. Guidelines for the perioperative care of patients selected for day stay procedures. [internet]. 2018. [cited May 20, 2018]. Available from: https://www.anzca.edu.au/documents/ps15-2010-recommendations-for-the-perioperative-ca.pdf
14. Renholm M, Suominen T, Puukka P, Leino-Kilpi H. Nurses' Perceptions of Patient Care Continuity in Day Surgery. Journal of PeriAnesthesiaNursing. 2017;32(6):609-18.
15. Eun-Young J, Hyunjin O. Patient Needs and Satisfaction With Nursing Care After Day Surgery Based on a Patient-Centered Care Framework. Clinical Nursing Research. 2017;26(3):301-17.
16. Lau H, Poon J, Lee F. Patient satisfaction after ambulatory inguinal hernia repair in Hong Kong. Ambulatory Surgery. 2000;8(3):115-8.
17. Lemos P, Pinto A, Morais G, Pereira J, Loureiro R, Teixeira S, et al. Patient satisfaction following day surgery. Journal of Clinical Anesthesia. 2009;21(3):200-5.
18. Mottram A. “like a trip to mcdonalds”: a grounded theory study of patient experiences of day surgery. International Journal of Nursing Studies. 2011;48(2):165-74.
19. Markovic M, Bandyopadhyay M, Vu T, Manderson L. Gynaecological day surgery and quality of care. Australian Health Review. 2002;25(3):52-9.

20. Fabricant PD, Seeley MA, Rozell JC, Fieldston E, Flynn JM, Wells LM, et al. Cost Savings From Utilization of an Ambulatory Surgery Center for Orthopaedic Day Surgery. The Journal Of The American Academy Of Orthopaedic Surgeons. 2016;24(12):865-71.
21. Berg K, Årestedt K, Kjellgren K. Postoperative recovery from the perspective of day surgery patients: A phenomenographic study. International Journal of Nursing Studies. 2013;50(12):1630-8.
22. Mottram A. 'They are marvellous with you whilst you are in but the aftercare is rubbish': a grounded theory study of patients' and their carers' experiences after discharge following day surgery. Journal of Clinical Nursing (John Wiley & Sons, Inc). 2011;20(21-22):3143-51.
23. Majholm B, Esbensen BA, Thomsen T, Engbaek J, Møller AM. Partners' experiences of the postdischarge period after day surgery--a qualitative study. Journal Of Clinical Nursing. 2012;21(17-18):2518-27.
24. Barthelsson C, Nordström G, Norberg Å. Sense of coherence and other predictors of pain and health following laparoscopic cholecystectomy. Scandinavian Journal of Caring Sciences. 2011;25(1):143-50.
25. Erkal S. Patients' experiences at home after day case cystoscopy. Journal of Clinical Nursing. 2007;16(6):1118-24.
26. Fitzpatrick JM, Selby TT, While AE. Patients' experiences of varicose vein and arthroscopy day surgery. British Journal Of Nursing. 1998;7(18):1107-15.
27. Gilmartin J. Contemporary day surgery: patients' experience of discharge and recovery. Journal of Clinical Nursing. 2007;16(6):1109-17.
28. Rosén HI, Bergh IH, Lundman BM, Mårtensson LB. Patients' experiences and perceived causes of persisting discomfort following day surgery. BMC Nursing. 2010;9:16-.
29. Cox H, O'Connell B. Recovery from gynaecological day surgery: are we underestimating the process. Ambulatory Surgery. 2003;10(3):114-21.
30. Gilmartin J, Wright K. The nurse's role in day surgery: a literature review. International Nursing Review. 2007;54(2):183-90.
31. Gonçalves-Bradley DC, Lannin NA, Clemson LM, Cameron ID, Shepperd S. Discharge planning from hospital. The Cochrane Database Of Systematic Reviews. 2016(1):CD000313.
32. Wong J, Tong D, De Silva Y, Abrishami A, Chung F. Development of the functional recovery index for ambulatory surgery and anesthesia. Anesthesiology. 2009;110(3):596-602.
33. Stessel B, Fiddelers AA, Joosten EA, Hoofwijk DMN, Gramke H-F, Buhre WFFA. Prevalence and Predictors of Quality of Recovery at Home After Day Surgery. Medicine. 2015;94(39):1-10.
34. Lockwood C. Qualitative research synthesis: methodological guidance for systematic reviewers utilizing meta-aggregation. International Journal of Evidence-Based Healthcare. 2015;13(3):179-87.
35. Munn Z, Porritt K, Lockwood C, Aromataris E, Pearson A. Establishing confidence in the output of qualitative research synthesis: the ConQual approach. BMC Medical Research Methodology. 2014;14:108.
36. Kleinbeck SVM, Hoffart N. Outpatient recovery after laparoscopic cholecystectomy. AORN Journal. 1994;60(3):394-402.
37. Odom-Forren J, Reed DB, Rush C. Postoperative Distress of Orthopedic Ambulatory Surgery Patients. AORN Journal. 2017;105(5):464-77.
38. Odom-Forren J, Reed DB, Rush C. Postoperative Symptom Distress of Laparoscopic Cholecystectomy Ambulatory Surgery Patients. Journal of PeriAnesthesia Nursing. 2018;33(6):801-13.
39. Mottram A. Patients’ experiences of day surgery: a Parsonian analysis. Journal of Advanced Nursing. 2011;67(1):140-8.

40. Bryson GL, Mercer C, Varpio L. Patient and caregiver experience following ambulatory surgery: qualitative analysis in a cohort of patients 65 yr and older. Canadian Journal Of Anaesthesia. 2014;61(11):986-94.
41. Dawe DE, Bennett LR, Kearney A, Westera D. Emotional and informational needs of women experiencing outpatient surgery for breast cancer. Canadian Oncology Nursing Journal. 2014 Winter2014;24(1):20-4.
42. Gilmartin J, Wright K. Day surgery: Patients felt abandoned during the preoperative wait. Journal of Clinical Nursing. 2008;17(18):2418-25.
43. Greenslade MV, Elliott B, Mandville-Anstey SA. Same-day breast cancer surgery: a qualitative study of women's lived experiences. Oncology NursingForum. 2010;37(2):E92-E7.
44. Bailey CR, Ahuja M, Bartholomew K, Bew S, Forbes L, Lipp A, et al. Guidelines for day-case surgery 2019: Guidelines from the Association of Anaesthetists and the British Association of Day Surgery. Malden, Massachusetts: Wiley-Blackwell; 2019. p. 778-92.
45. Young J, O'Connell B, McGregor S. Day surgery patients' convalescence at home: does enhanced discharge education make a difference? Nursing & Health Sciences. 2000;2(1):29-39.
46. McCloy O, McCutcheon K. The day surgery experience from the perspective of service users. British Journal of Nursing. 2016;25(13):736-9.
47. Jaensson M, Dahlberg K, Nilsson U. Factors influencing day surgery patients' quality of postoperative recovery and satisfaction with recovery: a narrative review. Perioperative Medicine (London). 2019;8:348. Best JT, Musgrave B, Pratt K, Hill R, Evans C, Corbitt D. The Impact of Scripted Pain Education on Patient Satisfaction in Outpatient Abdominal Surgery Patients. Journal Of Perianesthesia Nursing: Official Journal Of The American Society Of Perianesthesia Nurses. 2018;33(4):453-60.
49. Franzon J, Berry N, Wonggom P, Astley C, Du H, Tongpeth J, et al. Patients' satisfaction with information at discharge. British Journal of Cardiac Nursing. 2018;13(4):182-9.
50. Daniels S-A, Kelly A, Bachand D, Simeoni E, Hall C, Hofer SM, et al. Call to care: the impact of 24-hour postdischarge telephone follow-up in the treatment of surgical day care patients. The American Journal of Surgery. 2016;211(5):963-7.
51. Jaensson M, Dahlberg K, Eriksson M, Grönlund Å, Nilsson U. The Development of the Recovery Assessments by Phone Points (RAPP): A Mobile Phone App for Postoperative Recovery Monitoring and Assessment. JMIR Mhealth And Uhealth. 2015;3(3):e86-e.
52. Nilsson U, Jaensson M, Dahlberg K, Odencrants S, Grönlund Å, Hagberg L, et al. RAPP, a systematic e-assessment of postoperative recovery in patients undergoing day surgery: study protocol for a mixed-methods study design including a multicentre, two-group, parallel, single-blind randomised controlled trial and qualitative interview studies. BMJ Open. 2016;6(1):e009901-e.
53. Villamin C, Berg K. Improving patient satisfaction with discharge videos: Standardizing patient education with technology establishes a culture of patient safety. American Nurse Today. 2018;13(9):86-8.
54. Dahlberg K, Jaensson M, Nilsson U. "Let the patient decide" - Person-centered postoperative follow-up contacts, initiated via a phone app after day surgery: Secondary analysis of a randomized controlled trial. International Journal of Surgery. 2019;61:33-7.
55. Maurice E. Timely patient discharge from the ambulatory surgical setting. AORN Journal. 2015;102(2):185-91.
56. Lynch KM, Lefort SM. Standardized Discharge Information After Short-Stay Hysterectomy and Relationships With Self-Care Confidence, Perceived Recovery, and Satisfaction. Journal of Obstetric, Gynecologic & Neonatal Nursing. 2016;45(5):e41-e54.

57. Odom-Forren J, Rayens MK, Gokun Y, Jalota L, Radke O, Hooper V, et al. The Relationship of Pain and Nausea in Postoperative Patients for 1 Week After Ambulatory Surgery. Clinical Journal of Pain. 2015;31(10):845-51.
58. Nilsson U, Jaensson M, Dahlberg K, Hugelius K. Postoperative Recovery After General and Regional Anesthesia in Patients Undergoing Day Surgery: A Mixed Methods Study. Journal of PeriAnesthesia Nursing. 2019;34(3):517-28.
59. Apfel CC, Philip BK, Cakmakkaya OS, Shilling A, Shi YY, Leslie JB, et al. Who is at risk for postdischarge nausea and vomiting after ambulatory surgery? Anesthesiology. 2012;117(3):475-86.
60. Bruderer U, Fisler A, Steurer MP, Steurer M, Dullenkopf A. Post-discharge nausea and vomiting after total intravenous anaesthesia and standardised PONV prophylaxis for ambulatory surgery. Acta Anaesthesiologica Scandinavica. 2017;61(7):758-66.
61. Rajala M, Kaakinen P, Fordell M, Kääriäinen M. The Quality of Patient Education in Day Surgery by Adult Patients. Journal Of Perianesthesia Nursing: Official Journal Of The American Society Of Perianesthesia Nurses. 2018;33(2):177-87.
62. Hoffman AJ, Brintnall RA, Given BA, von Eye A, Jones LW, Brown JK. Using Perceived Self-efficacy to Improve Fatigue and Fatigability In Postsurgical Lung Cancer Patients. Cancer Nursing. 2017;40(1):1-12.
63. Joanna Briggs Institute. JBI Reviewer's Manual [Internet]. 2019 [Cited 2020 Feb 5]. Available from: https://wiki.joannabriggs.org/display/MANUAL/2.6.7+Data+extraction
64. Joanna Briggs Institute of Evidence and Grades of Recommendation Working Party. Grades of recommendation [Internet]. 2013 Oct. [Cited 2020 Feb 5] Available from: https://joannabriggs.org/sites/default/files/2019-05/JBI-grades-of-recommendation_2014.pdf

Appendix I: Search strategy

CINAHL

ID	Query
1	MH ambulatory surgery OR TX “ambulatory surgery” OR TX “day surgery” OR TX “day surgery unit” OR TX “day only”
2	MH patient attitudes OR TX “patient experience*” OR TX “patient perception*” OR MH patient satisfaction OR TX satisfaction OR TX perception OR TX “patient perspective*” OR TX perspective OR TX “patient view*” OR TX “patient opinion*” OR TX view* TX “patient education” OR AB “patient education”
3	MH qualitative OR TX qualitative
4	MH patient discharge OR TX “patient discharge” OR MH patient discharge education OR TX “patient discharge education” OR MH postoperative care OR TX “postoperative care” OR MH discharge planning OR TX “discharge planning” OR TX “discharge preparation”
5	MH recovery OR TX recovery OR TX convalescence
6	2 OR 3
7	4 OR 5
8	1 AND 6 AND 7 NOT (abstract OR book OR book chapter OR case study OR commentary OR editorial OR letter OR proceedings) – Limited to exclude MEDLINE records

MEDLINE

ID	Query
1	ambulatory surgery [mh] OR ambulatory surgery [tw] OR day surgery [tw] OR "day only" [tw]
2	patient attitudes [mh] OR "patient experience*" [tw] OR "patient perception*" [tw] OR patient satisfaction [mh] OR "patient satisfaction" [tw] OR "customer satisfaction" [tw] OR "client satisfaction" [tw] OR "client perception*" [tw] OR "customer perception*" [tw] OR "patient perspective*" [tw] OR "patient view*" [tw] OR "patient opinion*" [tw] OR "consumer view*" [tw] or "consumer perspective*" [tw] OR "consumer experience*" [tw] OR "consumer opinion*" [tw] OR "patient education" [tw]
3	Qualitative research [mh] OR qualitative [tw]
4	patient discharge [mh] OR "patient discharge" [tw] OR patient discharge education [mh] OR "patient discharge education" [tw] OR postoperative care [mh] OR "postoperative care" [tw] OR discharge planning [mh] OR "discharge planning" [tw] OR "discharge preparation" [tw]
5	recovery [tw] OR convalescence [tw]
6	2 OR 3
7	4 OR 5
8	1 AND 6 AND 7

Embase

ID	Query
1	'ambulatory surgery'/exp OR 'day surgery'/exp OR 'day only'
2	“patient attitudes”/exp OR “patient experience*”/exp OR “patient perception*”/exp OR “patient satisfaction”/exp OR “customer satisfaction”/exp OR “client satisfaction”/exp OR “client perception*”/exp OR “customer perception*”/exp OR “patient perspective*”/exp OR “patient view*”/exp OR “patient opinion*”/exp OR “consumer view*”/exp or “consumer perspective*”/exp OR “consumer experience*”/exp OR “consumer opinion*”/exp OR “patient education”/exp
3	‘Qualitative’/exp OR ‘qualitative research’/exp
4	“hospital discharge”/exp OR “patient discharge”/exp OR “patient discharge education”/exp OR “postoperative care”/exp OR “discharge planning”/exp OR “discharge preparation”/exp
5	recovery/exp OR convalescence/exp
6	2 OR 3
7	4 OR 5
8	1 AND 6 AND 7

PsycInfo

ID	Query
1	ambulatory surgery.tw OR day surgery.tw OR day only.tw
2	patient attitudes.tw OR patient experience*.tw OR patient perception*.tw OR patient satisfaction.tw OR customer satisfaction.tw OR client satisfaction.tw OR client perception*.tw OR customer perception*.tw OR patient perspective*.tw OR patient view*.tw OR patient opinion*.tw OR consumer view*.tw or consumer perspective*.tw OR consumer experience*.tw OR consumer opinion*.tw OR patient education.tw OR consumer attitude*.tw OR adult attitudes.tw
3	qualitative.tw OR qualitative research.tw
4	Hospital discharge.tw OR patient discharge.tw OR patient discharge education.tw OR postoperative care.tw OR discharge planning.tw OR discharge preparation.tw
5	recovery.tw OR convalescence.tw
6	2 OR 3
7	4 OR 5
8	1 AND 6 AND 7

Web of Science

ID	Query
1	TS=(ambulatory surgery) OR TS=(day surgery) OR TS=(day only)
2	TS=(patient attitudes) OR TS=(patient experience) OR TS=(patient perception) OR TS=(patient satisfaction) OR TS=(customer satisfaction) OR TS=(client satisfaction) OR TS=(patient perception) OR TS=(customer perception) OR TS=(patient perspective) OR TS=(patient view) OR TS=(patient opinion) OR TS=(consumer view) OR TS=(consumer perspective) OR TS=(consumer experience) OR TS=(consumer opinion) OR TS=(patient education)
3	TS=(qualitative) OR TS=(qualitative research)
4	TS=(patient discharge) OR TS=(patient discharge education) OR TS=(postoperative care) OR TS=(discharge planning) OR TS=(discharge preparation) OR TS=(hospital discharge)
5	TS=(recovery) OR TS=(convalescence)
6	2 OR 3
7	4 OR 5
8	1 AND 6 AND 7

Appendix II: Critical appraisal checklist

JBI Critical appraisal checklist for qualitative research

JBI Critical Appraisal Checklist for Qualitative Research

Reviewer_____ Date_____

Author _____Year_____Record Number_____.

		Yes	No	Unclear	Not applicable
1.	Is there congruity between the stated philosophical perspective and the research methodology?	☐	☐	☐	☐
2.	Is there congruity between the research methodology and the research question or objectives?	☐	☐	☐	☐
3.	Is there congruity between the research methodology and the methods used to collect data?	☐	☐	☐	☐
4.	Is there congruity between the research methodology and the representation and analysis of data?	☐	☐	☐	☐
5.	Is there congruity between the research methodology and the interpretation of results?	☐	☐	☐	☐
6.	Is there a statement locating the researcher culturally or theoretically?	☐	☐	☐	☐
7.	Is the influence of the researcher on the research, and vice- versa, addressed?	☐	☐	☐	☐
8.	Are participants, and their voices, adequately represented?	☐	☐	☐	☐
9.	Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	☐	☐	☐	☐
10.	Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	☐	☐	☐	☐

Overall appraisal: Include ☐ Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

_____

_____

_____

Appendix III: Data extraction instrument

JBI qualitative data extraction instrument

JBI QARI Data Extraction Form for Interpretive & Critical Research

Reviewer _____ Date _____

Author _____ Year _____

Journal _____ Record Number _____

Study Description

Methodology

Method

Phenomena of interest

Setting

Geographical

Cultural

Participants

Data analysis

Authors Conclusions

Comments

Complete Yes ☐ No ☐

Findings	Illustration from Publication (page number)	Evidence		
		Unequivocal	Credible	Unsupported

Extraction of findings complete Yes ☐ No ☐

Appendix IV: Characteristics of included studies

Reference	Methodology and methods	Setting and participants	Phenomenon	Conclusions	Notes
Berg *et al.*[21]	Methodology: phenomenographic Data collection: semi-structured interviews Data analysis: iterative procedure	2 day surgery units in Sweden 31 patients, 23 males, 8 females, between 18 to 70 years old Surgical procedures: orthopaedic, general surgical, urological	Day surgery patients' perceptions of postoperative recovery	The authors wrote "The postoperative phase seems to be a weak link in day surgery care. From patients' perspective, postoperative recovery following day surgery implies extensive responsibility at home. Patients need knowledge and understanding concerning what constitutes the normal range in recovery and how to manage self-care following their specific surgical procedure." (p.1630)	This study had the following findings: Conditions for recovery at home; rollback to ordinary life and being a cog in a flow of care.
Bryson *et al.*[40]	Methodology: qualitative Data collection: patient and caregiver comments in diaries Data analysis: qualitative description	Ambulatory surgical centre in Canada 105 patients and caregiver dyads Surgical procedures: orthopaedic (arthroscopy, forefoot, lumbar discectomy) and peritoneal (laparoscopy, gynecology, urology)	Explore the postoperative experience of ambulatory surgery as described by older surgical patients and caregivers	Older surgical patients and caregivers have challenges in postoperative recovery following day surgery. These challenges include physical and emotional recovery, and timely and specific information about recovery. The caregiver's experience also highlighted more preparation is needed to support caregivers in caring for patients in the home setting.	Three main categories were: Physical and emotional health, hospital experience and caregiving.

Reference	Methodology and methods	Setting and participants	Phenomenon	Conclusions	Notes
Dawe *et al.*[41]	Methodology: qualitative Data collection: semi-structured interview Data analysis: content analysis	Outpatient surgery in Canada 19 women between 38 to 72 years old Surgical procedures: lumpectomy, partial mastectomy to full mastectomy	Report the informational and emotional needs of women having outpatient surgery for breast cancer.	Women who undergo surgery for breast cancer are satisfied with their outpatient surgery experience, however closer attention is needed in content and timing of information on discharge care and community support.	This study had three main categories: emotional and informational needs prior to and immediately after surgery, emotional and information supports while recovery at home, and emotional responses to the outpatient experience.
Gilmartin & Wright [30]	Methodology: hermeneutic phenomenology Data collection: unstructured interviews Data analysis: thematic analysis	Large teaching hospital in England 20 patients between 19 to 85 years old Surgical procedures: gynaecology, urology and general surgery	Describe and interpret patients' experiences of contemporary day surgery.	The authors wrote "that majority of patients felt abandoned in the preoperative stage and nurses did not recognise ongoing psychological support. Therefore, it is crucial to strengthen the provision of emotional support and person-centred care in a day surgery context.	Findings from this study include: the feeling of empowerment during preparation, the apprehensions encountered, the feeling of abandonment in the preoperative waiting area, and the dynamics of recovery

Reference	Methodology and methods	Setting and participants	Phenomenon	Conclusions	Notes
Gilmartin [27]	Methodology: phenomenology Data collection: unstructured interviews Data analysis: thematic analysis	Large teaching hospital in England 30 patients between 19 and 85 years old Surgical procedures: gynaecology, urology and general surgery	Explore and reveal the patients' perceptions of discharge planning and recovery following day surgery.	Majority of patients considered discharge planning to be well organised. There were deficits in verbal instructions pertaining to discharge. The timing of providing information was also highlighted as an issue contributing to communication breakdown. Bodily disturbance and pain contributed to negative experiences in recovery. Women who underwent gynaecological procedures highlighted stress following discharge.	Findings include: discharge arrangements; pain, fatigue and skin discolouration; swelling, bruising and voiding difficulty; bleeding, mixed emotions and sense of betterment.
Greenslade *et al.* [43]	Methodology: constructivist Data collection: in-depth interviews eight weeks postoperatively Data analysis: comparative analysis	Outpatient departments of two city hospitals in Canada 13 women between 32 to 74 years old Surgical procedures: lumpectomy and mastectomy	Understand the experiences of women having same-day breast cancer surgery and make recommendations to assist healthcare professionals effect change to enhance quality of care.	The authors conclude that day surgery procedures for breast cancer has to be tailored for the woman going home. Support from family, friends and healthcare professionals is imperative for psychosocial adjustment and coping after surgery. They also note that community nursing could be improved.	Findings include: preparation, timing, support, community health nursing intervention with an essential theme of coping.

Reference	Methodology and methods	Setting and participants	Phenomenon	Conclusions	Notes
Kleinbeck[36]	Methodology: qualitative descriptive Data collection: semi-structured telephone interview on the second and fourth or fifth postoperative day Data analysis: coding	2 urban medical outpatient surgery centres 19 patients between 25 to 82 years old Surgical procedure: laparoscopic cholecystectomy	To explore the patient's definition of surgical recovery away from hospital, symptoms and events that patients experience away from hospital, and management of postsurgical symptoms at home.	Patients define recovery as being able to perform activities they were able to do prior to surgery. Most patients were able to manage symptoms albeit in a trial and error basis. Most patients did not read instructions until late in their recovery.	Findings include: the trip home, the first day home, recovery and advice for others. This study highlights the importance of ensuring timely and succinct information to enhance postoperative recovery at home.
Mottram [39]	Methodology: Glaserian grounded theory Data collection: semi-structured interviews 2 weeks before surgery, 48 hours and one-month after discharge Data analysis: line by line analysis	2 day surgery units in England 145 patients and 100 carers between 18 to 75 years old Surgical procedures: general surgery, ear nose and throat and orthopaedic specialties	To explore patients' experiences of day surgery using a sociological framework of analysis	"The importance of nurses providing supportive, psychological care, and ensuring patient and carer understanding of what day surgery entails cannot be overstated. Day surgery healthcare professionals must teach that day surgery is not minor surgery and that recovery times may be protracted." (146-147)	The 'sick role' was used as a conceptual model. Findings include: resisting the sick role, limited ascription of the sick role – what do I tell my boss, actively seeking the sick role.

Reference	Methodology and methods	Setting and participants	Phenomenon	Conclusions	Notes
Mottram [22]	Methodology: Glaserian grounded theory Data collection: semi-structured interviews 48 hours and one-month post-surgery Data analysis: line by line analysis	2 day surgery units in England 145 patients and 100 carers (age not specified) Surgical procedures: general surgery, ear nose and throat and orthopaedic specialties	To explore patients' experiences following discharge from the day surgery unit.	"Discharge planning should be started at the pre-assessment stage of the day surgery process and should be a collaboration between community staff, patients and day surgery nurses. More information should be given concerning community services available to the patients." (p.3143) Education to be tailored to patient and caregiver needs.	Findings include: I didn't know what to do (from the perspective of the caregiver), lack of aftercare, nostalgia (past better than present)
Odom-Forren *et al.*[37]	Methodology: qualitative descriptive Data collection: two focus groups with guiding questions Data analysis: content analysis	Hospital based ambulatory surgery in the United States (by inference) 10 patients and 9 caregivers with mean age of 46.9 years Surgical procedures: any type of shoulder or knee procedure scheduled as day surgery	To identify symptom management techniques that effectively reduce the distress of at home orthopaedic surgery recovery after ambulatory surgery and identify facilitators and barriers to the self-management of postoperative symptoms.	Patients and caregivers agreed on the presence of significant pain at home. Mobility was voiced as a major impairment post orthopaedic day surgery. Caregiver stress was another consequence as they struggled to meet the needs of the patient.	Findings were grouped according to symptoms and symptom management. Findings include: pain, nausea and digestive dysfunction, mobility issues, insomnia, caregiver stress and management of symptoms: pain medication, ice, use of recliners, positioning the extremity, not eating, use of stool softeners.

Reference	Methodology and methods	Setting and participants	Phenomenon	Conclusions	Notes
Odom-Forren *et al.*[38]	Methodology: qualitative descriptive Data collection: two focus groups with guiding questions Data analysis: content analysis	Ambulatory surgery (not specified) 7 patients and 6 caregivers. Patient mean age 46.9 and caregiver mean age 48 years Surgical procedures: laparoscopic cholecystectomy	To identify symptoms that cause postoperative distress in ambulatory surgery patients. To identify symptom management techniques that effectively reduce distress of laparoscopic cholecystectomy postoperative symptoms at home after ambulatory surgery; and identify facilitators and barriers to self-management of postoperative symptoms	Patients and caregivers agreed on more thorough education about how to care for symptoms at home and availability of care resources. High-quality written information regarding pain management and self-management of symptoms is needed. Nurses need to take a holistic look at the patient including preparation for home discharge and the home environment.	Findings were grouped according to symptoms and symptom management. Findings include: postoperative pain, nausea and vomiting, constipation, sore throat, inability to sleep, mobility impairment and caregiver stress.

Appendix V: Excluded studies and reasons for their exclusion

Reference	Reason
Boughton M, Halliday, L. Home alone: patient and carer uncertainty surrounding discharge with continuing clinical care needs. Contemp Nurse. (2009, Aug), [cited September 6, 2018]; 33(1): 30-40. Available from: CINAHL Complete.	Population unclear if patients were being discharged. Emailed authors and confirmed that population did not meet inclusion criteria.
Brekke A, Elfenbein DM, Madkhali T, Schaefer SC, Shumway C, Chen H, Schneider DF, Sippel RS, Balentine, C. When Patients Call Their Surgeon's Office: An Opportunity to Improve the Quality of Surgical Care and Prevent Readmissions. Am J Surg. (2016, Mar), [cited September 6, 2018]; 211(3):599-604. Available from: doi:10.1016/j.amjsurg.2015.11.008.	Did not meet phenomena of interest.
Bundgaard K, Nielsen K, Sørensen E, Delmar C. The best way possible! A fieldwork study outlining expectations and needs for nursing of patients in endoscopy facilities for short-term stay. Scand J Caring Sci. (2014, Mar), [cited September 6, 2018]; 28(1): 164-172. Available from: CINAHL Complete	Did not meet phenomena of interest.
Costa M. The lived perioperative experience of ambulatory surgery patients. AORN J. (2001, Dec), [cited September 6, 2018]; 74(6): 874-881. Available from: CINAHL Complete.	Did not meet phenomena of interest.
Dewar A, Scott J, Muir J. Telephone follow-up for day surgery patients: patient perceptions and nurses' experiences. J Perianesth Nurs. (2004, Aug), [cited September 6, 2018]; 19(4): 234-241. Available from: CINAHL Complete.	Did not meet phenomena of interest.
Fitzpatrick J, Selby T, While A. Clinical. Patients' experiences of varicose vein and arthroscopy day surgery. Br J Nurs. (1998, Oct 8), [cited September 6, 2018]; 7(18): 1107-1115. Available from: CINAHL Complete.	Did not meet phenomena of interest.
Khu KJ, Bernstein M, Midha R. Patients' perceptions of carpal tunnel and ulnar nerve decompression surgery. Can J Neurol Sci. (2011, Mar), [cited September 6, 2018]; 38(2): 268-273. Available from: EMBASE	Did not meet phenomena of interest.
Khu KJ, Doglietto F, Radovanovic I, Taleb F, Mendelsohn D, Zadeh G, Bernstein M. Patients' perceptions of awake and outpatient craniotomy for brain tumor: a qualitative study. J Neurosurg. (2010, May), [cited September 6, 2018]; 112(5): 1056-1060. Available from: EMBASE	Did not meet phenomena of interest.
Lambert J, Rusby J. WOMEN'S VIEW OF 23-HOUR HOSPITAL DISCHARGE FOLLOWING MASTECTOMY. Cancer Nurs Pract. (2014, Mar), [cited September 6, 2018]; 13(2): 18-23. Available from: CINAHL Complete.	Did not meet population inclusion criteria.
Mitchell M. Home recovery following day surgery: a patient perspective. J Clin Nurs. (2015, Feb), [cited September 6, 2018]; 24(3/4): 415-427. Available from: CINAHL Complete.	Did not meet methodological inclusion criteria.

Mottram A. “like a trip to mcdonalds”: a grounded theory study of patient experiences of day surgery. Int J Nurs Stud. (2011, Feb), [cited September 6, 2018]; 48(2): 165-174. Available from: CINAHL Complete.	Did not meet phenomena of interest.
Otte D. Patients' perspectives and experiences of day case surgery. J Adv Nurs. (1996, June), [cited September 6, 2018]; 23(6): 1228-1237. Available from: CINAHL Complete.	Did not meet population inclusion criteria.
Rosén H, Bergh I, Lundman B, Mårtensson L. Patients' experiences and perceived causes of persisting discomfort following day surgery. BMC Nurs. (2010, Jan), [cited September 6, 2018]; 98p. Available from: CINAHL Complete.	Did not meet phenomena of interest.

Appendix VI: List of study findings

Berg K, Årestedt K, Kjellgren K. Postoperative recovery from the perspective of day surgery patients: A phenomenographic study. Int J Nurs Stud. (2013, Dec), [cited September 6, 2018]; 50(12): 1630-1638. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
Preparing oneself for surgery	‘‘Since it was supposed to be a simple operation I didn’t look up anything special about it’’ (Pt 19).	Unequivocal
The impact of personal traits during the recovery process	‘‘You have to trust yourself the whole time that I can do this’’ (Pt 7)	Unequivocal
Useful knowledge for managing recovery	‘‘I had the knowledge in that I understood that I had to make sure the recovery worked’’ (Pt 26).	Unequivocal
Individual strategies for the post-discharge management of self-care	‘‘It’s just common sense for me. Because what else do you have to go by? Then it’s really just to feel your own signals’’ (Pt 2).	Unequivocal
Sense of security post-discharge	‘‘I have an advantage in that I have someone who’s knowledgeable about medicine here at home. I guess I have extra security there’ (Pt 13).	Unequivocal
Perceived characteristics of recovery	‘‘I could say, but this swelling, it’s irritated me more than I expected’’ (Pt 15).	Credible
The impact of physical restrictions during recovery	‘‘I haven’t been able to do much of what I usually do. . .instead it’s the wife who’s been more burdened’’ (Pt 3).	Unequivocal
Experienced emotional consequences following surgery	‘‘It’s in your head the whole time that it [won’t turn out well]. . . You want to be with them, help them [the children]. It’s things like that. To be a good dad’’ (Pt 19).	Unequivocal
Need of support in ordinary life	‘‘I’ve needed help with routine stuff. Things you don’t think about otherwise’’ (Pt 5).	Unequivocal
Experiences from being a participant in effectiveness	‘‘But I mean it’s this conveyor belt principle. They don’t have time to talk to the patient in a calm atmosphere, to explain etc.. . .’’ (Pt 14).	Unequivocal
To be involved or not in health decisions	‘‘After two weeks of my being sick-listed it was still bleeding, so I needed to be sick-listed longer. I rang up and asked and we agreed on one more week. It was no problem’’ (Pt 29).	Unequivocal
Experiences of perioperative communication	‘‘It’s really hard to get a ton of information when you’ve just woken up. It’s not really that you’re super smart just then and remember. . .or actually are even interested in what somebody wants to say to you’’ (Pt 5).	Unequivocal

The burden of postoperative responsibility	‘‘But if you don’t follow what you’ve gotten from them [instructions], you’re responsible for what happens’’ (Pt 25).	Unequivocal

Bryson G, Mercer C, Varpio L. Patient and caregiver experience following ambulatory surgery: qualitative analysis in a cohort of patients 65 yr and older. Can J Anaesth. (2014, Nov), [cited September 6, 2018]; 61(11): 986-994. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
Pain	‘‘I have experienced more discomfort/pain from this procedure than expected. Perhaps the pain medication was not strong enough for the situation.’’ Patient103	Unequivocal
Gastrointestinal	‘‘The pain medication prescribed caused too much nausea. I stopped it and took Tylenol 500 which may have given less relief but which did not cause nausea and vomiting.’’ Patient126.	Unequivocal
Sleep	‘‘I decided to take one tablet of Tramadol instead of 1/2, so that it would last all night. I did not like it. I kept waking up with itchy skin and very unpleasant SWISHING sound in my head/brain, especially when I blinked my eyelids - WOOSH-SWISH.’’ Patient533	Unequivocal
Wound care	No patient illustration	Unsupported
Autonomy	‘‘1st day at home – scary! Very limited movement. Walking is a problem, carrying anything impossible!’’ Patient530	Credible
Emotional state	No patient illustration	Unsupported
Perception of being informed	‘‘Sheets of instructions given at discharge are contradictory even though both have the doctor’s name on them.’’ Patient133	Unequivocal
Institutional support	‘‘I was told to remove my bandage today and when I did there were a number of smaller bandages crisscrossing the incision. Don’t know if I am to remove these - and Dr. office closed for weekend. My instructions were not clear.’’ Patient537	Unequivocal
Caregiver experience	No patient illustration	Unsupported
Caregiver concerns	No patient illustration	Unsupported

Dawe D, Bennett L, Kearney A, Westera D. Emotional and informational needs of women experiencing outpatient surgery for breast cancer. Can Oncol Nurs J. (2014, Winter2014), [cited September 6, 2018]; 24(1): 20-24. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
Type of information	No patient illustration	Unsupported
Amount of information	“They gave me a bunch of books, now that was frightening...”	Credible
Timing of information	“I think I was listening to them, but I was still trying to take in the fact that I had breast cancer.”; “…it was a	Unequivocal

	really poor time to do it [explain the post-operative arm exercises] because I was falling asleep when she told me [during recovery from the anesthetic] … I don't know half of what she said."	
Social support	"My sister came … and I knew I was in good hands. …If it were just me and my husband I don't think I would have made it." ; "the emotions are there and your friends are there to listen, no matter what." ; "with support from my family and friends … it was relatively easy, um, because I went to my son's house. And so I didn't have to come home alone."	Unequivocal
Professional support	"They [the CHN] came every second day, and that was REALLY, I mean to me that was better than staying in the hospital."	Unequivocal
Survivor support	I didn't talk to the right people before I had my surgery… I think there should be something in place where you could talk to someone who already had this surgery."	Unequivocal
Initial shock	"When he [the doctor] said day surgery, I said 'what!' and he said, oh yes a couple of hours and you'll be in and out. And it took me aback, you know."	Unequivocal
Acceptance	"So, I was delighted that I was going to go in and out, you know, come out, you know that day and go home."	Unequivocal
Satisfaction	"Before I even had it done I was amazed that they were going to do it and send me home… Looking at it now, looking back on it, it was a good thing to go home. I had no problems whatsoever with the surgery, no infections… well most people have a fear of hospitals anyway. They just want to get out of there as quickly as they can, so maybe it's a good thing it's done the way it is."	Unequivocal
Feeling "pushed out"	"…I thought an overnight stay even wouldn't have been too bad. But I really didn't think going to get something done and being rushed out the same day… and it was late in the day and… the thing [day surgery] closed down at six o'clock, so it was a bit of a rush near the end to push me out… I lay down the minute I got in [home] …and then I was right upset. I felt …not much caring that they go and take you and throw you out the same day."	Unequivocal

Gilmartin J. Contemporary day surgery: patients' experience of discharge and recovery. J Clin Nurs. (2007, June), [cited September 6, 2018]; 16(6): 1109-1117. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
Discharge arrangements	The nurse went through aspects of the discharge information when my husband arrived. There was no mention of sexual activity or an indication of how long I should refrain. I wonder if I had been a younger woman whether they might have mentioned it.	Unequivocal
Sense of pain, fatigue and skin discoloration	I coped with the pain because the anaesthetist had prepared me but the skin discoloration came as a shock. I came home on Friday morning and on Friday night I started to go black and blue mainly below my waist where the scar was. It spread down my groin into my testicles making them go completely black. I didn't know what to do but after a couple of days it disappeared.	Unequivocal
Sense of swelling, bruising and voiding difficulty	I was anxious because passing water was painful like an accumulation of piercing razor blades leaving my body. I gave way to self-pity but on the second day I was fine. (Anouk)	Unequivocal
Sense of bleeding, mixed emotions and betterment	The bleeding was heavy and bothersome…I put my feet up but it still persisted. I contacted my GP who encouraged me to take lots of rest. It is still flowing 10 days following surgery but is starting to subside a little.	Unequivocal

Gilmartin J, Wright K. Day surgery: patients' [sic] felt abandoned during the preoperative wait. J Clin Nurs. (2008, Sep 15), [cited September 6, 2018]; 17(18): 2418-2425. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
The feeling of empowerment during preparation	I saw the anaesthetist and she asked me about my previous operations. I told her about my concerns and the problems with anaesthetics and sickness afterwards. She was very understanding and said she could help, telling me about anti-sickness medication. (Serena)	Unequivocal
The apprehensions encountered	I was worried about the possibility of urinary incontinence and frequency occurring after the cystoscopy…you get that feeling that you might smell of urine…filthy. The urologist already mentioned that the patch of nerves that control my bladder seemed very small indicating that some were probably removed when I had my prostatectomy. (Rupert)	Unequivocal
The feeling of abandonment in the preoperative waiting area	Bella asserted: 'I was very busy with the consultations on admission…then I sat down and felt totally abandoned. The wait became a bit of an overwhelming ordeal and the nursing staff made little attempt to interact with me. I tried to calm down a patient who was threatening to run away. Again, the nursing staff did not support this distressed patient. I never told anyone that I was a day surgery staff nurse.	Unequivocal

The dynamics of recovery	I was drowsy, incoherent, and very disorientated following the procedure and would have liked more time to recover. The nurses hurried me and I could hardly walk at all.	Unequivocal

Greenslade M, Elliott B, Mandville-Anstey S. Same-day breast cancer surgery: a qualitative study of women's lived experiences. Oncol Nurs Forum. (2010, Mar), [cited September 6, 2018]; 37(2): E92-7. Available from: CINAHL Complete.

Finding	**Illustration**	**Level of credibility**
Preparation	When I went to preadmission, the nurse there—she was a sweetheart—she told me everything that was going to happen. . . . She even explained almost as to how it was going to feel after. She did a good job. She explained everything there was to know about it and what to expect and everything.	Unequivocal
Timing	When I got back to that room . . . I was so groggy. . . . I opened my eyes once, and this woman was standing by the bed with a book telling me about exercises I had to do on my arm, and I mean I never had a clue what she was saying, and, finally, I remember her laying it down. She said, "Take this book with you when you go home." And the next day, I found this book there, and I mean I couldn't even remember what she said to me. I mean, to send in a physiotherapist to tell you about arm exercises when you're not out of an anesthetic, before you go home	Unequivocal
Supports	Being as I work in health care, I have a lot of friends and coworkers and doctors and had a lot . . . my four sisters . . . three sisters are LPNs, and I have one who's an RN—and so it seemed like to me that I just could reach out and I had a network of people around me and I was very, very fortunate, and a lot of caring and understanding people who could console me and could answer a lot of my questions along the way.	Unequivocal
Community health nursing intervention	And they told me community health would be in. When I phoned, they were closed for the weekend. Monday was a holiday. Tuesday morning, they called up and said, "We're busy in the clinic, can you come up here?" . . . So I said, "I'm not getting dressed up and coming up there." . . . So by the time they got in, I had it all taken care of and done anyway.	Unequivocal
Coping	You have to have a good attitude and don't think about it. I never spoke to a person about it, except my husband and my daughter-in-law and my son. That's the way I look at it. Be positive. . . . The doctor, nurses . . . they're just going to do their very best for you, and they're not going to let you come home and die. . . . You've got to help yourself and get out there and do your own thing. That's what I did anyway.	Unequivocal

Kleinbeck S, Hoffart N. Outpatient recovery after laparoscopic cholecystectomy. AORN J. (1994, Sep), [cited September 6, 2018]; 60(3): 394-402. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
The trip home	No illustration	Unsupported
The first day home	"Went home and laid down"	Credible
Recovery	"I'll know I'm recovered when I feel like getting back to sewing"	Credible
Advice for others	"I woke up feeling real energetic and started doing things and wore myself out"	Unsupported

Mottram A. Patients' experiences of day surgery: a parsonian analysis. J Adv Nurs. (2011, Jan), [cited September 6, 2018]; 67(1): 140-148. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
Resisting the sick role	About three days after surgery I thought I could get up and do a few jobs around the house. But when I got up I felt like I was going to faint. You see my mind was ahead of my body. I thought I was more ready than I was.	Unequivocal
Limited ascription of the sick role – what do I tell my boss?	My boss told me he had me down on the rota the next day. He said you can't be having that much done to you if you are only in for a day. (Woman, tendon repair)	Unequivocal
Actively seeking the sick role	I was wishing for a longer stay. I have never been off sick in all the time. I have worked for that company. I was really glad that when I came home two work mates came to see me and while they were there the district nurse came bringing a student nurse with her. This is great I thought. Two nurses. They will know now that they (health service personnel) are taking my knee seriously. (Man, arthroscopy)	Unequivocal

Mottram A. 'They are marvellous with you whilst you are in but the aftercare is rubbish': a grounded theory study of patients' and their carers' experiences after discharge following day surgery. J Clin Nurs. (2011, Nov), [cited September 6, 2018]; 20(21/22): 3143-3151. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
I didn't know what to do	I didn't know what to do. I mean he was laughing and joking when he left the hospital. I wondered if he had done some damage to himself on the way home, or whether this was just normal. If only a nurse could have looked in on him.	Unequivocal
I didn't know who to turn to!	At the weekend I was feeling really rough. I was feeling fine until then but suddenly felt awful. I rang the helpline they had given me. They told me to ring for an ambulance. I didn't want to do that. I mean ambulances are for accidents, life and death situations. I wasn't like that. I just wanted to know if how I was feeling was normal, but I didn't know who to turn to. (Martin, hernia repair)	Unequivocal
Nostalgia	When I was growing up we had fantastic family doctors. It was a family practice. There was the father, his son and uncle all in the same practice. They were so dedicated. They would come out to see you anytime of the day and night. Now you just get switched on to the out of hours service and they seem pretty useless to me. (Cyril, age 68, knee arthroscopy)	Unequivocal

Odom-Forren J, Reed D, Rush C. Postoperative Distress of Orthopedic Ambulatory Surgery Patients. AORN J. (2017, May), [cited September 6, 2018]; 105(5): 464-477. Available from: CINAHL Complete.

Finding	Illustration	Level of credibility
Pain	"It was two days of hell. I considered going to the emergency room, thinking that maybe they would shoot me up with morphine like they did with kidney stones."	Unequivocal
Nausea and digestive dysfunction	"I thought I was going to have to go back to the hospital I was constipated so bad."	Unequivocal
Sore throat	No illustration	Unsupported
Mobility issues	"On the first day, we figured out the crutches were not adjusted right. Getting him in the house was a big ordeal . . . he was so out of it."	Unequivocal
Insomnia	"I didn't sleep for the first three days, and that was with medicine."	Unequivocal
Caregiver stress	"I can't use my left hand, can't even get the covers up. My wife is a lifesaver."	Unequivocal
Pain medication	No illustration	Unsupported

Ice	"ice pack numbed it superficially, but the pain was very deep ...to the bone."	Credible
Use of recliners	"I could use my recliner to slide the pillow around and get my shoulder in different positions."	Credible
Positioning the extremity	No illustration	Unsupported
Not eating	No illustration	Unsupported
Use of stool softeners	No illustration	Unsupported

Odom-Forren J, Reed D, Rush C. Postoperative Symptom Distress of Laparoscopic Cholecystectomy Ambulatory Surgery Patients. J Perianesth Nurs. (2015, Aug), [cited September 6, 2018]; 30(4): e39. Available from: CINAHL Complete.

Finding	**Illustration**	**Level of credibility**
Postoperative pain	''I was not told to expect right shoulder pain .you don't think when they're working on the abdomen you're going to have neck and shoulder pain.''	Unequivocal
Nausea and vomiting	"…it was normal to feel awful.''	Credible
Constipation	''I should have taken a stool softener with the pain medication, but I didn't think to take it.''	Unequivocal
Sore throat	'My voice sounded horrible .I would wake up real hoarse.''	Unequivocal
Inability to sleep	'When I tried to lie down, it was too painful so I slept in the chair with my feet propped. I did that for 6weeks.''	Unequivocal
Mobility impairment	''I was afraid to sit down [on the toilet] when she [caregiver] was gone. that I might not be able to get back up.'' ''Getting down to the toilet seat or up was hard...I had to hold on to the door knob and pull myself up and it hurt, it hurt.''	Unequivocal
Work-related stress	No illustration	Unsupported
Caregiver stress	''The caregivers need to schedule an extra day or two off ahead of time from work instead of being surprised afterward that it is worse they thought.''	Unequivocal

Appendix VII: Meta-aggregation

Synthesised finding 1: Patients experience day surgery in different ways, with some feeling positive about same-day discharge, others are overwhelmed with discharge information, and some feeling rushed and unprepared to leave the health facility

Findings	Category	Synthesised finding
Initial shock	Patients had conflicting reactions to same day discharge	Patients experience day surgery in different ways, with some feeling positive about same-day discharge, others are overwhelmed with discharge information, and some feeling rushed and unprepared to leave the health facility
Acceptance		
Satisfaction		
Experiences of perioperative communication	Patients experienced difficulties in retaining discharge information	
Timing of information		
Feeling pushed out	Patients felt rushed or 'pushed out' too soon after surgery	
The dynamics of recovery		
Actively seeking the sick role		

Synthesised finding 2: Day surgery is associated with various physical and emotional symptoms that can cause stress for patients and their caregivers.

Findings	Category	Synthesised finding
Postoperative pain	Physical and emotional symptoms were common after day surgery	Day surgery is associated with various physical and emotional symptoms that can cause stress for patients and their caregivers.
Sense of pain, fatigue and skin discolouration		
Sense of swelling, bruising and voiding difficulty		
Nausea and vomiting		
Constipation		
Sore throat		
Sense of bleeding, mixed emotions and betterment		
Experienced emotional consequences following surgery		
Inability to sleep		
Mobility impairment		
The impact of physical restriction		
Autonomy (lack of)		
Resisting the sick role		
Wound care	Following discharge, caregivers of day surgery patients experienced stress due to lack of understanding of the recovery process and as a result of changes in their role and home dynamics	
Emotional state		
Caregiver experience		
Caregiver concerns		
Caregiver stress		
I didn't know what to do		

Synthesised finding 3: Day surgery patients require practical self-management strategies and coping skills as well as support from health practitioners, community services and caregivers to facilitate recovery.

Findings	Category	Synthesised finding
The burden of postoperative responsibility	Discharge from day surgery triggered self-management strategies and coping skills which assisted in patients' recovery	Day surgery patients require practical self-management strategies and coping skills as well as support from health practitioners, community services and caregivers to facilitate recovery.
Preparing oneself for surgery		
The impact of personal traits during the recovery process		
Individual strategies for the post-discharge management of self-care		
Coping		
Ice		
Use of recliners		
To be involved or not in health decisions	Patients required support from healthcare professionals prior to their discharge from day surgery	
Useful knowledge for managing recovery		
Perception of being informed		
Institutional support		
Amount of information		
Preparation		
Discharge arrangements		
The feeling of empowerment during preparation		
The apprehensions encountered		
The feeling of abandonment in the preoperative waiting area		
Professional support	Patients needed follow-up support from healthcare professionals for postoperative recovery at home	
Community health nursing intervention		
Lack of aftercare		
Social support	Patients perceived support from family, friends and other patients with similar surgery as a key component of recovery from day surgery	
Survivor support		
Sense of security post-discharge		
Caregiving		
Limited ascription of the sick role – what do I tell my boss?		